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Teacher and Principal.

By HELEN M. BULLIS, New Jersey.

The teacher who would place herself in a truly professional rank must seriously consider her environment at the outset of her career. She must place herself in an ideal relation toward it, and must constantly endeavor to hold herself therein. This relation is three-fold, leaving out of account the actual work of teaching, which it is not now our purpose to take up. First, she owes a duty to her school principal or superintendent; second, to the school board, and third, to society. This arrangement is in the order of encounter, not necessarily that of importance.

The relations between teacher and principal are too often strained and false. Too often each surrounds the other with an atmosphere of criticism, which while it may seldom distil in words, is sufficient to paralyze honest effort on both sides to come to a better understanding. Neither is wholly, both are partly, and the current system is mostly to blame. The different grades of no other profession offer a parallel to the positions of teacher and principal. The physician is accountable to no one but the community for his work; the judge does not dictate to the lawyer concerning his conduct of a case unless he goes beyond the bounds of law and courtesy. The bishop is not apt to interfere with the methods of clergymen in his diocese, except in great and rare emergencies. In each profession there are certain ends to be attained, and as many means of attaining them as there are men at work. It would be absurd to expect them all, or even any considerable portion of them, to adopt the same methods. Self-interest, pride, the love of humanity, all are motives sufficient to inspire every man to do his best, and any outside pressure would only result in irritation and consequent loss of effectiveness.

This is the point at which energy is wasted in the work of teacher and principal. The latter is often chief executive and both branches of the legislature rolled into one, with the powers of lord chief justice and state executioner superadded. A man with such authority who would not use it for what he conceived to be the good of the school, would be unheard of. As he becomes convinced of the merits of a system, he naturally seeks to introduce it. If this could be done by one person, all would be well; but the necessity of working thru perhaps fifty teachers, compels him to reduce them to the level of fifty blindly obedient machines, in order to obtain machine-turned uniformity of result. It is not his fault should some of the cogs perform their tasks unwillingly,—neither is it theirs; one cannot force conviction upon one's self any more than upon others. It is no one's fault but everybody's misfortune, particularly the children's, who are the chief sufferers. The teacher, being human and intelligent, resents the place and duty of a cog, or being a cog by nature, resents the demand of a progressive world that she exhibit the breadth and independence of mind that we have learned to expect in men and women of other professions. The principal resents the more or less imperfect working of his system, and blames the cogs. Altogether it is, as the weaver in "Hard Times" would have said, "Aw a muddle." This is one extreme; the other is still more to be dreaded. The only condition worse than one-man will upon fifty

subordinates is fifty-woman will upon one unfortunate principal. It is said that such cases have been known. But it is a subject to be delicately touched upon.

What Ought to Be.

The school should be a republic. It should make its own laws and execute them, study its especial needs and supply them, regardless of what other schools do, except in so far as these may serve as models or as awful warnings. The aims of the school should be accurately defined and unanimously agreed upon. A difference of opinion here is so serious that a teacher who cannot conscientiously endorse them would much better seek some other field of action. After this allow the greatest latitude in method. Are teachers so lacking in originality and common sense that they cannot be trusted to perform a plain task after their own manner? Will not the knowledge that getting the best results in the shortest time makes for success and honor, and the opposite for failure, be more inspiration to proper preparation and honest work, than the principal's "Thou shalt" and "Thou shalt not"? Advice is sometimes good; dictation is always bad, unless a person is absolutely incapable of original work,—in which case, it is needless to say, he should not attempt nor be permitted to teach.

There are many signs of a need for reformation in the relations of teacher and principal. In how many schools are teachers' meetings and conferences welcome as meetings for mutual benefit ought to be? In how many schools does a teacher receive an unexpected summons to the superintendent's office without a sudden searching of spirit after the possible mistakes of the day? In how many schools are the teachers sincerely glad to see the principal in their class-rooms during recitation. If a perfectly honest census of feeling could be obtained the schools that would reply heartily in the affirmative to even these three queries would be hopelessly in the minority. Admitting this, there must surely be something rotten in Denmark. Either teachers are strangely lacking in love for their work,—which is not true,—or they feel that they are doing it under needless disadvantages.

The School System a Republic.

From the nature of their positions there is seldom perfect frankness of opinion and speech from teacher to principal. She usually likes and respects him thoroly, as a man; he would probably find it hard to grasp, that in a professional capacity he paralyzes her power for original work. She wishes to please, she must keep her position, she distrusts her own abilities; it is easier to do as one is told than to evolve methods. And then if she fails she can feel that it is not wholly her fault,—which is consoling. So she follows the outline she is given, according to the method she is given, and becomes an excellent routine teacher. Of course in the long run she deteriorates; of course her teaching grows commonplace and mechanical, and in time the principal wakes up to the fact that the school has got out of its stride, and decides that it needs a younger and fresher corps of teachers. So the new are rung in, and the old,—the old teachers with the germs of all their possibilities lying dry as dust within them,—to what bourne are they rung out?

The remedy for all this, as has been said before, lies in the application of republican government to the school. The principal should still be chief executive,

but that is all; the teacher should make the laws. The time may come when an enlightened board of education shall perform the duties of upper house; but, as Kipling says, that is another story. The only way to develop character is to set it to swinging, not Indian clubs, but responsibility. Given it, young and inexperienced people will make mistakes of course. What their elders are slow to realize is that to check the mistakes by purely repressive measures is also to check growth in other and wholly proper directions.

Teachers need to feel responsibility in their hands from the start; to fall down if must be and get up again if may be, but alone; to work out their own salvation with fear and trembling. Few, indeed, there are who do it without. After they have achieved this they will belong to a profession, and not till then.

What the Teacher Must Do.

But what part has the individual teacher in the proposed reform. Does it seem more a matter for the principal himself to take up? He cannot do it alone. There are many who would be glad to get into closer touch with their teachers, if they only knew how. But there is a barrier of silence and it may be of lack of confidence between them, and for him too, it is easier to go on in the old way. An opening in the barrier must be made from the teacher's side.

From the beginning, to speak directly, make up your mind that you will not be merely a cog in the machine; don't talk about it; simply don't become one. If you are told to do a certain thing in a certain way do it, but don't do the next thing so too. Ten to one the principal didn't mean that you should, nor is it likely that he wished you to do even the same thing in exactly the same way every time and under every condition. If you are sure he was so little of a psychologist as to mean just that, don't argue the point, but state your own convictions briefly and courteously. If the principal is not wholly impossible,—a rare case nowadays, and one hardly worth considering,—have no concealment from him about your work and your point of view regarding it. That does not mean rush to him with its details of execution; quite the contrary; these are, or should be, strictly your own business, only to be investigated in case of failure. Make him feel that you are absolutely to be depended upon, that you are not likely to seem enthusiastic to him about your love for the school, and write home that teaching is horrid work and you wish you were well out of it.

As Elbert Hubbard says, "Americanitis, nervous exhaustion, and mental prostration,—one and the same thing, is the result of trying to pass for something different from what you are. Concealment is friction."

Be always looking for the best, not the easiest means of doing your work. If experience does for you what it should, you will find that in the long run the lines of best and easiest draw very close together. Be slow to take up with other people's novelties, unless you feel a distinct "leading of the spirit" toward them. If they are your own, and you have faith, try them. Success or failure in one's own experiments is a great educator. Above all, and once more, be yourself, and have the courage of the highest in you.

As rapidly as teachers voluntarily assume responsibility principals will consult, instead of dictating to them. When strong women set up the standard of independence and originality—in deeds, not in words—the others will follow for very shame's sake or drop out of the ranks altogether. And as soon as these things are accomplished, there will be a profession of teaching for all the world to see.

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An entertaining article on "Vacation School Problems," by Miss Mary G. Fernald, who has had experience in organizing the vacation school work in New York City, will appear in THE SCHOOL JOURNAL of next week or the week following.

Business Education in Public Schools.*

By I. O. CRISSEY, New York State Inspector of Business Education.

Up to the end of the first quarter of the nineteenth century there seems to have been no demand in the United States for school instruction in matters appertaining to business. Merchants and others in business pursuits still believe that the only way for a young man to learn business was by apprenticeship in the place where business was done. But quite early in the second quarter of the century the people began to hear of schools for fitting boys for business—business colleges they were called by their proprietors—by instruction in penmanship, bookkeeping, commercial arithmetic, and English if required by the student. It was many years before these schools obtained much substantial encouragement; but they persisted, and after the close of our Civil war they rapidly increased in numbers and attendance, until the number of their students was estimated as high as 100,000. There was no graded course of study in these schools; but each individual student had permission to take such instruction as he could get, for such time as he could command or was able to pay for. When these schools attained to a certain measure of financial success adventurers came into the field and started "fake" schools and sold life scholarships ostensibly good for all time and practically good for nothing at any time, thus humbugging and swindling those who confided in them. Out of such operation naturally grew up a distrust of all "business colleges," notwithstanding the fact that the good work was done in the subjects taught by many of the private schools, and these have been and some of them still continue to be of real benefit to the community.

But meantime the idea of free public schools took root and developed, until such schools became the great educational reliance of the people. During comparatively recent years there has grown up steadily a conception which is now in many communities thruout the nation taking the shape of an insistent demand that our public free schools shall prepare young people for entrance into business pursuits no less than for college or professional training schools. Out of the facts and conceptions thus baldly stated grows an important problem which educators to-day have to face. Broadly stated the problem is to put into the public schools, running parallel with the classical, scientific, and literary courses, a course of instruction which will fitly educate for life while it also trains for a livelihood in business pursuits.

Public business schools or business courses in public schools, if they are to succeed must be made, without any suggestion of supposed inferiority, an integral part of our educational system. This means that they must be conducted on principles and methods that are educationally and pedagogically sound. The first function of all sound education is to "make the man," the next to fit him so far as possible for his vocation in life; and unless this be its recognized aim and end the business course in the public schools has no reason for being. In this view such a course should not be dominated by the technical business studies; but on the contrary the studies that best make for development of faculty and intellectual power should be the first consideration.

In breadth and disciplinary value the commercial course should be the peer of any course in the high school and it should cover the same period of time. There should be abundant instruction in English, with considerable attention to its literature and a minimum of technical grammar. One foreign language, at least, should be studied for two years. History should receive attention, United States history being studied with copious references to English history and in connection with geography and civics. While history of commerce should be studied with commercial geography, intensively as to

*Part of paper read before the recent meeting of the New York State Council of City and Village Superintendents.

our own country and more generally as to others, and the whole should be supplemented by economics and commercial law. Mathematics should, of course, be a foundation subject, and include algebra or geometry, perhaps both. The curriculum should also include natural history studies, physics and chemistry, physiology and hygiene, and drawing, either as required or elective studies, and there should be occasional rhetorical exercises, and perhaps music. The strictly technical instruction would include book-keeping, business arithmetic, business correspondence and business forms with abundant practice, business technics and office routine, shorthand, and typewriting; and there should be occasional instruction, perhaps in the form of lectures, on banking and finance, transportation, commercial legislation, and the ethics of business.

Book-keeping is the leading technical study and the instruction as to the underlying principles of the science and their practical application to the recording of business transactions should be thorough and exhaustive, and accompanied at every step by illustrative examples. In due time the student should be required to write up two model sets of books, including the writing of all the business papers involved, and covering two distinctly different kinds of business. He should be instructed in bank book-keeping as to its distinctive requirements and also as to the special books necessary for corporations or stock companies; and in all cases strictly up-to-date methods should be taught. No attempt need be made to go into the variety of details applying to all the different lines of business. Such a course would be, practically, as impossible as unnecessary.

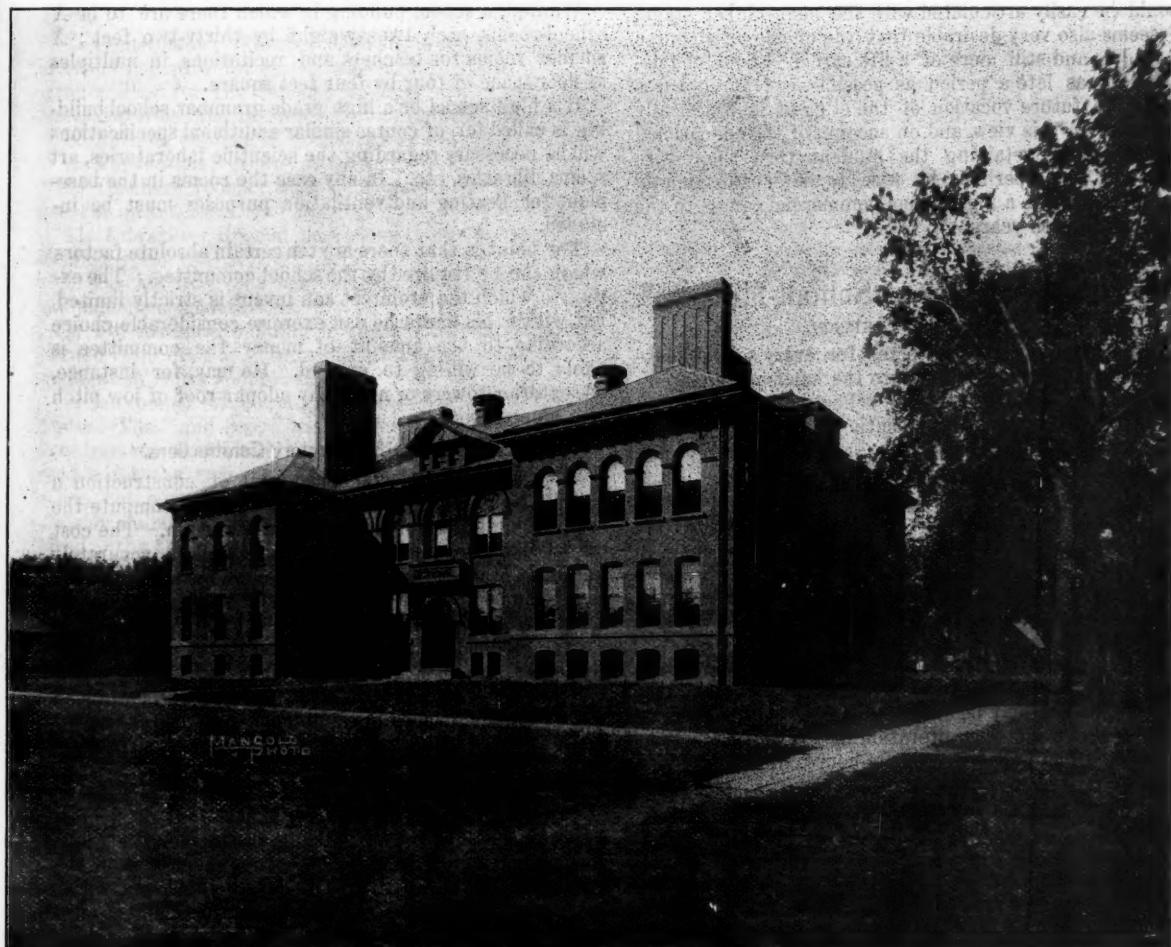
As bearing somewhat on this phase of the subject I endorse the following words of Dr. Herrick: "The stu-

dent should be so trained that his economic value should not be fixed by what he is but what he may quickly and readily become; he should be of worth for his skill in gaining and using new information." But to this I would add that if the student has mastered the principles and done the work I have just suggested, while he would not be by any means a finished business man, yet he would be able to take up, and continue correctly and intelligently, any set of books in any line of business and therefore equipped immediately to become, at least, a self-sustaining member of society, and qualified to become also an efficient member of the business community.

In the Elementary School.

Now, as regards business instruction below the high school for the great mass of students who do not go beyond the grammar schools, I firmly believe that it is quite possible in the grades to give the pupil a fair and enduring knowledge of the more common business forms, such as bills, receipts, checks, notes, drafts, and bills of lading, in connection with his instruction and drill in writing—copy books having recently been published with that end in view. In the same way he may be made, to some extent, practically acquainted with business correspondence without, in either case, taking any time from the other studies he is pursuing; and, similarly, some of his work in arithmetic may easily take the form of simple book-keeping, without any detriment to the subject-in-chief, and with much interest and satisfaction to the pupil, on account of the practical character and novelty of the work. Simple books and forms for this purpose, with full instructions to teachers, are cheap and can be readily obtained.

Some such work as that suggested has already been



The New High School Building, Blair, Neb.

done in at least two large grammar schools in this state. It was not given to all the pupils in any grade, but the work in book-keeping proved so attractive to the pupils that the principal of one school allowed it to be taken up as a reward of merit to students who had been specially diligent in general work. Of course the grammar school is not the place for specializing; but my suggestion does not contemplate any specializing. The work, if done at all, should be done by every pupil in the grade and thus, while no regular study would suffer any loss of time, the knowledge gained would not only be more or less valuable in itself, but both interesting and inspiring to the pupils.

It has been a continuing source of anxiety that so few of our children, and particularly so few of our boys, get into the high school. In a paper read before the American Institute of Instruction, July 10, 1899, on the subject, "Recent Changes in Secondary Schools," President Eliot said: If we could get rid of that distinct and most untimely stopping-place at the end of the grammar school, a larger proportion of American children would pursue their education beyond fourteen or fifteen." There is much force in this statement; and in the light of recent experience it has become hopefully probable that if we put sound business courses into our high schools we shall be able to attract and hold for four years longer many more of the boy graduates of our grammar schools. It seems to me also that our chances of doing this will be materially increased if the boys are allowed to catch the flavor of this attractive commercial work before leaving the grammar school.

As a general proposition it seems highly desirable that there should be no difficult barrier between the grades and the high school, and I quite agree with those who hold that at each stage there should be an education that is as nearly as possible complete in itself and that this should be easily articulated with the next higher stage. It seems also very desirable that the choice of a course of study—and still more of a life career—should be deferred to as late a period as possible, except in cases where the future vocation of the student is practically assured. In this view, and on account of the educational importance of retaining the student thru the entire course, it would perhaps be wise to defer the strictly technical work in a high school commercial course to the third and fourth years.

The Construction of School-Houses.*

By EDWARD ATKINSON.

Until very recently the plans for every school-house contemplated have been put into the hands of an architect by a committee, as if each school-house were to be made the subject of a new invention. In many extreme cases it would appear that the architect took up some exterior aspect, suggested by his fancy, and then adjusted to this given exterior all the interior arrangements. Even if that extreme position is not taken, the interior conditions and the adaptation of the school-rooms to school-work are very often made quite subordinate, especially in the matter of lighting or window space, to the exterior appearance or architectural effect of the building taken as a whole.

Now the requirements of every school-house are identical. The variations from a common unit are very slight, and each may be made subject to separate treatment without material alteration in the general lay-out and plan. The unit of a school-house in Boston is a room thirty-two feet long and twenty-eight feet wide. Whether that is the ideal unit or not need not here be considered; it is one that can be adapted for the purposes of a general treatise on the construction of all school-houses built upon such a unit.

Notice that this particular unit may be readily divided into units of four by four feet square. A very convenient

unit of framing this, and one that allows for but a single specification in placing all timbers,—a very essential factor in economy of construction.

With a unit of space established, the next factors applicable to every school-house are as follows:

1. The maximum of well-diffused light, preferably from one side. As there is a question if light ought not also to be taken from one end, behind the pupils, the plan for construction may leave a choice of the maximum of well-diffused light either from one side only or from one side and one end of each school-room.

2. The right quantity of well-warmed air, rightly distributed and carried off by adequate measures.

3. The maximum of stability, strength, safety from fire and freedom from vermin, which is consistent with due regard to economy in construction and to the requirements of the building laws.

4. Such artistic or architectural effects both within and without as may be consistent with the purpose of the building as above defined.

The Canon of Artistic Beauty.

A building planned with due regard for these motives will justify itself under the higher rule of art. It will be fitted for its purpose; its adaptation to its motive will give it breadth, dignity, and repose.

If this definition of a school-house be accepted, the work of invention is practically ended. There can be but one best way of meeting these necessary conditions in any given place. No variation can properly be called for on account of the nature of the site, for a site on which this plan cannot be carried out ought to be rejected.

The Architect's Problem Stated.

It follows that, given a proper site, such a problem as this can be put into the hands of the architect.

Wanted, a school building in which there are to be X school-rooms, each twenty-eight by thirty-two feet; X smaller rooms for teachers and recitations, in multiples of floor space of four by four feet square.

If a high school or a high grade grammar school building is called for, of course similar additional specifications will be necessary regarding the scientific laboratories, art rooms, libraries, etc. In any case the rooms in the basement for heating and ventilation purposes must be included.

The point is that there are ten certain absolute factors which can be required by the school committee. The extent to which the architect can invent is strictly limited, but within his limits he can exercise considerable choice according to the amount of money the committee is likely to be willing to expend. He may, for instance, use exterior towers or not; may adopt a roof of low pitch or a hipped roof.

Computations from Factory Constructions.

With a definitely established unit of construction a committee ought to be able approximately to compute the cost of building before any bids are turned in. The cost of factory construction per square foot is accurately known in every center of population and can be assumed as a basis upon which to compute. The elements of mill construction may in part be applied to school building, for the problems of lighting and heating the factory and the school are very much alike; and there is no type of building in which the diffusion of well-warmed air in winter and well-cooled air in summer has been more perfectly accomplished than in the latest type of cotton factory.

There may therefore be a very fair theory established of what ought to be the cost per square foot of floor of a thoroly suitable school building based upon the developed experience of the uniform cost per square foot of the modern factory. There are of course important variations, such as that the shell of the school-houses need partitions which the factory cannot have; yet the probable cost of these variations can be figured out to a nicely by any one conversant with building propositions.

* Condensed by special permission from a privately printed report by Mr. Edward Atkinson.

It follows that if one school-house should be erected in any given neighborhood on the lines corresponding to this proposal and if no further invention should seem to be needed in it, then a type of school-house has been created which will be a standard of right construction of all school-houses called for thereafter at that place, subject only to the variations in the prices of the materials and the labor entering with the cost of construction.

Proper Specifications.

It must be admitted that many of the school-houses erected throughout the country in recent years have cost more than they ought to have cost and still are not as well suited to their purpose as they should have been. It may therefore be well to lay down categorically the specifications which a committee or board ought to submit to an architect.

1. The proper size of the class-room in each grade—primary, grammar, or high school.
2. The maximum number of desks and, therefore, of pupils to be assigned to one teacher.
3. The proper height of the class-rooms.

4. The lighting of the rooms. The position of the windows, whether all on one side, or at one side and one end; the dimensions of the window spaces and their position in relation to the ceiling, top light being worth more than bottom light; the type of window, whether the ordinary lifting sash with pulley stiles and blocks, or the fixed plates of glass below with a transom window opening for ventilation across the top.

5. Ingress and Egress: The number of staircases, whether they shall be straight flights or broken by landings; the width of stairs and the height of tread; the width of doors and type of doorway; fire escapes.

6. Lavatories: The number acquired in ratio to the number of pupils; the type and kind of lavatory appliances; whether the fittings shall be for closets or lavatories.

7. Coat-rooms: Whether separate for boys and girls; whether separate for each room or two large ones on ground floor for the school; whether coat-rooms shall join lavatories and be ventilated conjointly with them.

8. Bathing appliances, if desired by the board.

9. Ventilation; Choice of system, etc.

10. Teachers' rooms; whether separate or one large one for all teachers.

11. Libraries: Special provisions should be carefully defined.

12. Blackboards, whether vertical or sloped forward, and similar considerations.

13. For instance, building is cheaper if plaster is discarded from main or outer walls, brickwork, whitewashed, or painted, being adopted instead.

A few points which ought specially to be noted are these: The "mill floor" has become in some places a requirement of the building act. It is everywhere preferable for the basement floor. Other floors, especially when not connected with flues behind the furring of outside walls, may be of the ordinary construction, if desired,—the advantage of the solid floor being freedom from vermin.

The flat roof is good for a roof-garden or play space, or, if glazed in, as a place for performing experiments in science which call for sunlight.

The maximum number of floors should be decided by the committee, not by the architect.

How to Calculate Cost.

In a broad and general way one may compute the cost of a school building, without plumbing, midway between the cost of a factory building and a hospital. That means about \$1.35 per square foot of floor counting all floors. The school-house of least cost in construction would be one placed on a moderate slope, consisting of basement story and two floors to be occupied by pupils, the main entrance being on the lower side of the slope by a doorway into the basement, the stairway being wholly within.

Now for a rough-and-ready computation. Assume an eight-room school-house with two floors of four rooms each;—such school-rooms to be 28 x 32 feet. Four rooms would require in all square feet of floor 3,584

Add for hallway, stairway, teachers' room and lavatories 60 per cent. of school-room space, 2,150

Basement would therefore cover, square feet of floor, 5,734

First floor, 5,734

Second floor, 5,734

Total floor area, square feet of floor 17,202

This gives, with 448 pupils, 38.56 square feet per pupil. Add for contingencies and assume forty feet per pupil. This would give the cost for a substantial brick building \$54 per pupil. Multiply by 448 and we get \$24,192.

To this must be added architects' fees, plumbing, heating, ordinary grading, and contingencies. It would seem that an addition of 25 per cent. ought in most cases to be sufficient. If so, we reach a total cost of \$30,000, which is about the minimum for a really well constructed building of this description. The price of building material of course varies considerably in different localities and at different times. Yet this may be accepted as a fair average, minimum price to pay for an eight-room school-house. With the addition of ornamentation, exterior or interior, the cost is of course enhanced. It is true, also, that such buildings for one reason and another do cost rather more than they theoretically should; there is apt to be a good deal of unnecessary leakage.



Modes of Diffusing Light.

Recent experiments in the use of ribbed and prismatic glass have so important a bearing upon the problem of school lighting that THE SCHOOL JOURNAL is very glad of the opportunity to give some account of them in this department. The report has just been made of two available public tests of the diffusion of light given by Mr. Charles L. Norton at the Walker building of the Massachusetts Institute of Technology, Sept. 12 and 13. The representatives of a number of prominent glass manufactories were there present and were greatly impressed by the results shown. It is practically certain that we shall hear a great deal in the next few years regarding the new types of window glass.

These public exhibitions represent the practical culmination of a long series of experiments carried on since 1883 by Mr. Edward Atkinson and two or three scientists whom he has interested in the subject. The idea first came to Mr. Atkinson when, in an inspection of some English cotton mills, he noticed that their windows were glazed with a roughened plate glass which seemed to give a uniform light throughout the room. Mr. Atkinson was so struck by the usefulness of this glass that he at once began inquiries which have since been satisfactorily answered. He has had, as is usual in such cases, to meet with considerable scientific skepticism. People persisted in attributing to him a visionary scheme for increasing the amount of light thrown into a room thru a given window—a manifest impossibility. At last, however, it has become pretty well understood that all these experiments look toward an increase in the amount of effective light, and all ridicule of Mr. Atkinson's assertions has ceased. Members of the Associated Factory Mutual Companies of New England, of which he was the originator, have put different forms of ribbed and corrugated glass into practical use and the principles of the thing have been applied with great success to the manufacture of glass shades for Welsbach or powerful electric lights by the Holophane Company of New York.

What Ribbed Glass Will Do.

The conclusions deduced from Mr. Norton's tests, with a window twelve inches square serving as the sole source of light in a large hall with dark ceiling, are as follows:

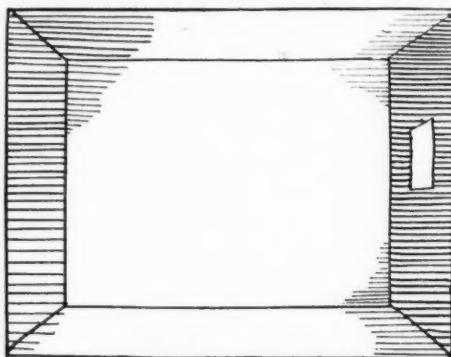
1. Windows of the customary height, but of one-third the width commonly adopted, when glazed with ribbed or suitable prismatic glass, will give on a bright day as much effective light as the full width of windows glazed with plane glass; on a cloudy day or in a position where the light from the sky is derived from a limited space, even a greater area.

2. Windows of the common type now in mills, workshops or school-houses, now fitted with plane glass, if reglazed in the upper half only with ribbed or prismatic glass, will yield on a bright day more than fifty per cent. excess of effective light,

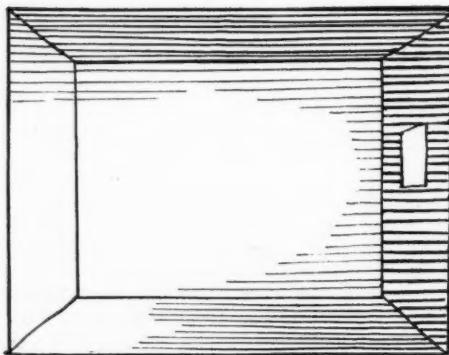
or on dark days a greater ratio. If reglazed down to but not including the lower panes (in which plane glass is advised), the increase in effective light will be much greater.

3. Whether or not the increase of effective light will be as great in a room now lighted by the customary number of windows of plane glass as in this hall lighted with a single

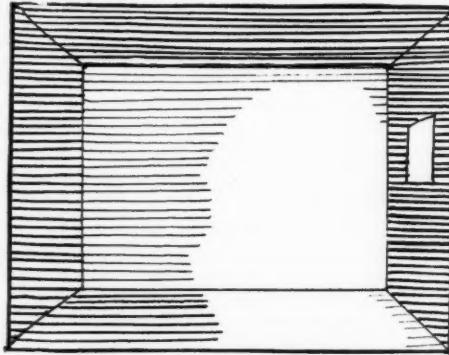
DIAGRAMS SHOWING THE DIFFUSION OF EFFECTIVE LIGHT.



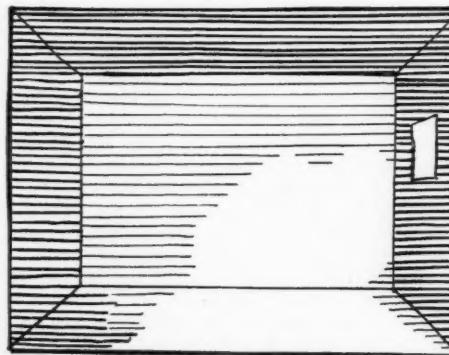
No. 1. Factory ribbed glass.



No. 2. Prismatic glass.



No. 3. Maze glass.



No. 4. Plane glass.

twelve-inch window has not yet been determined, but it has been proved in mill practice that the light is much improved in quality and is rendered much more effective, both near to and far away from the windows.

It is needless to say that these facts ought to secure the

immediate attention of school committees and school superintendents. The light in school-houses should be wholly on the left of the pupils, and the present customary area, thirty-two feet in length and twenty-eight feet in width is a very bad form for lighting effectively in the inner part of the room from plane glass. Every teacher knows practically that there are spots in the best lighted school-room where children with weak eyes cannot be seated. The light near the windows is too strong, in the recesses of the room too dusky. To distribute the light properly is the whole problem. Now it is evident that certain types of corrugated or prismatic glass can be made by any glass manufacturer for the special purpose of glazing or reglazing the upper sash in school-rooms of twenty-eight feet from window to wall, by which the rays of light may be deflected to the ceilings, which may then be kept white. The light will be reflected from the ceiling to the desks, without any danger of strong lines of light, which may be injurious to the eyes, being thrown upon them. If this can be accomplished, no cloth shades will be needed, even on the south side. The use of end windows and back lights will, of course, be wholly done away with. The teacher will no longer have to face a glare of light.

Many people have objected to this type of window on the ground that one cannot see out from it. The objection has no basis in fact, for the lower row of panes may always be glazed with plane glass. It would seem, also, that the notion which is prevalent that the sunshine which comes thru plane glass is more hygienic than that coming thru rough glass is a fallacy. Diffused sunlight is without question better for the eyes and it has been shown to have the effect of making the warming of a room more uniform.

A comparative study of the light dispersing power of four kinds of glass window gives the results shown in the accompanying cuts. The four diagrams represent the lighting of a section of a room, fifty feet by forty feet, given in perspective with one side removed. The inferiority of the plane glass is seen at a glance; the light is thrown strongly upon a single point rather than dispersed thruout the room.

The *maze* glass is not especially applicable to school-rooms, but is of great value for studios or art class-rooms since it gives a soft and very uniform light in all weathers. It does away with the necessity for north exposure in studios.

For most school purposes the *factory ribbed* glass is the preferable medium. As will be seen from the plate it gives a diffused light that hardly deepens anywhere into half-tone. It is already, in a crude form, in use in a great many mills. It costs but little more than ordinary double-thick plane glass, and it increases the amount of effective light in a moderately-sized room by from three to fifteen times.

Prismatic glass has already come into extensive use for dark rooms in apartment houses. It is somewhat less effective as a diffusing medium than the *factory ribbed* glass, but has the advantage of throwing light very powerfully in the direction of the back wall.

It must be added in conclusion that Mr. Norton's experiments were carried on with a degree of accuracy that is rare even among scientists. Every effort was made to preclude the possibility of error. The data were gathered in sixteen days, between August 15 and September 13, with photometric measurements each day of the outside conditions of light. The effects of light coming thru windows that do not open directly to the sky but upon brick walls were also very carefully studied. The results, therefore, that have been established are quite absolute; we are going to have as a result of them better lighted school-rooms.



The Atlas Science Tablets, noted on page 484.

School Equipment.

Under this head are given practical suggestions concerning aids to teaching and arrangement of school libraries, and descriptions of new material for schools and colleges. It is to be understood that all notes of school supplies are inserted for purposes of information only, and no paid advertisements are admitted. School boards, superintendents, and teachers will find many valuable notes from the educational supply market, which will help them to keep up with the advances made in this important field. Correspondence is invited. Address letters to *Editor of THE SCHOOL JOURNAL*, 61 East 9th street, New York city.

The Uses of Color Photography.

The value of the stereopticon in the lecture hall and school-room is likely to be greatly enhanced by recent developments in the line of color photography. Suppose that the lecturer of to-day wishes to show his audience some of the color schemes of the great Italian painters, of Titian or Paul Veronese. He can have slides prepared from colored photographs which reproduce with the greatest exactitude all the tones of the original paintings. Heretofore only the black and white values of the masterpieces could be given in reproduction. To-day the color can be shown as in a mirror.

The possibilities in this for lantern representation will readily suggest themselves. Science lectures in mineralogy and chemistry can be rendered doubly instructive when the actual objects in all their natural color can be shown on the screen. The need of handing specimens around the class is obviated. In geography or physical geography all the places of the world can be brought before the class with something like their own glory of color. Whatever the camera can get can now be made available in its natural tones for school-room use.

There are at present two principal systems of color photography, one the Kromskop Color Photography, invented by Mr. F. E. Ives, of Philadelphia, the other the McDonough system manufactured by the International Color Photography Company, of Chicago.

The Ives Process.

Direct photography of the coloring of nature in one exposure is, of course, still impossible. Mr. Ives' plan of color photography is based upon the theory of making three photographs representing the three primary colors—red, green, and blue or violet—and then blending them optically so as to obtain a photographic image of the colors as well as the forms of objects. This union of the primary colors has long been employed in color printing, but Mr. Ives in 1888 first applied it successfully to photography. Since that time he has steadily improved his color selections until to-day he is able to get remarkably accurate renderings.

The name Kromskop is phonetic spelling for an abbreviation of "photochromoscope."

The Kromskop system is based upon the fact that all the lines in nature are physiologically equivalent to mixtures of three simple spectrum colors,—red, green, and blue—violet. (The primaries recognized by the artists, red, yellow, and blue apply, it should be understood, simply to pigments.) The Kromskop photograph consists of three stereoscopic pairs of images, similar, in appearance, to ordinary uncolored lantern slides but which, by differences in their light and shade, represent the distribution of proportions of the respective primary colors in the object photographed. The Kromskop photograph is therefore not strictly a color photograph so much as a color record. It is dependent upon a resolution of the color of every object into its component primaries.

The construction of the Kromskop will be readily understood from the sectional plan shown opposite. A, B, and C are red, blue, and green glasses against which the corresponding images of the color record are placed when the instrument is in use. D and E are transparent reflectors of colored glass. F represents the eye lenses for magnifying the image. Beyond C is a reflector for illuminating the images at C—those at A and B being illuminated by direct light from above.

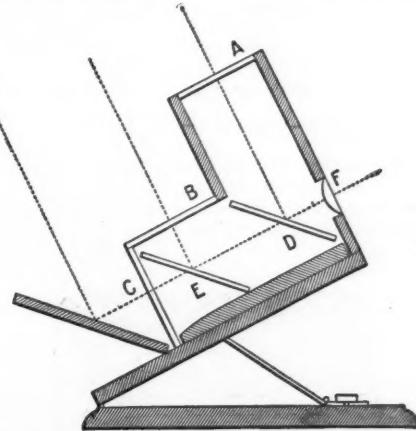
The operation of the instrument is as follows:—The green images are seen directly, in their position at C, thru the transparent glasses D and E. The blue images are seen by reflection from the surface of the glass E, which makes them appear to occupy the same position, and, in fact, to become part of the images at C. In the same way the red images are seen by reflection from the surface of the glass D, and also appear to form part of the images at C. And, finally, the eye lenses at F not only magnify but cause the eyes to blend the two images which constitute the complete stereoscopic pair, as in the ordinary stereoscope. The result is a single image, in solid relief, and in the natural colors.

When there is no Kromogram in the instrument the mixture

of the three pure colors produces white. Shading either of the glasses produces color, and it is the function of the Kromogram, by varying the density of its images to make such a mixture of the pure colors as will reproduce all the infinite variety of light and shade and color of the objects photographed.

The Kromskop negative is usually made on a single photographic plate, at one exposure in a special camera, by which the records of color are obtained automatically and accurately. The positive record is made by contact printing from the negative in the usual way; the glass plate is then cut in three and mounted on the special hinged frame designed to bring the respective pairs of images readily into position in the Kromskop. The Kromogram thus formed can be changed with great facility, and quickly folded up for putting away.

At night, and when the light from the sky is not available, it is necessary to use the "Kromskop Night Illuminator," by means of which the light of two Welsbach gas burners is suitably distributed for this purpose. The Kromskop can also be converted in a moment, into an ordinary stereoscope for



viewing specially mounted glass stereograms. Moving objects, therefore, which cannot be photographed as Kromograms snapshot, may be photographed in the ordinary manner and viewed stereoscopically in the same instrument; and more perfectly than the ordinary paper stereograms.

A special exhibition of the Kromskop is given by Mr. Ives every Friday afternoon at the New York branch of the company, 18 West Thirty-third street. His showing of Kromogram with the magic lantern is interesting and instructive. The realization of color in some of the architectural and geographical views is little short of marvelous. The stereoscopes with which the rooms are filled are also well worth looking into. An interesting example of their commercial possibilities is to be noted in Mr. Ives' statement that they are already used by salesmen who handle goods in which color plays an important part. He instanced a traveler for a house importing oriental rugs. Formerly the salesman had to carry samples with him at great expense and annoyance; now he can take with him a perfect representation of any rug carried by his house, showing it in the Kromskop. It would seem that travelers for the educational trade might use the instrument profitably in this way.

The McDonough System.

The International Color Photo Company control what is known as the McDonough system of photography in natural colors. The basic idea in this is the same as in the Ives system, but the appliances differ widely. The invention is the work of the late James W. McDonough.

The results in this system are attained with one exposure and one negative. Three colors are selected from the spectrum—the first a reddish orange, the second a yellowish green, and the third a violet blue. Those colors, when placed upon a disk which is equally divided into three sections representing the above colors, and the disk rotated rapidly, give the sensation of white light. When these three colors are ruled in very fine lines, say three to five hundred to the inch, the resultant sensation of white is the same as in the rotating disk. The linear area being too fine for the eye to separate, their combination gives the sensation of white light. When one or more of these areas are covered by black lines in part or whole, then the resultant sensation is the mixture of the remaining areas which are left uncovered by the black.

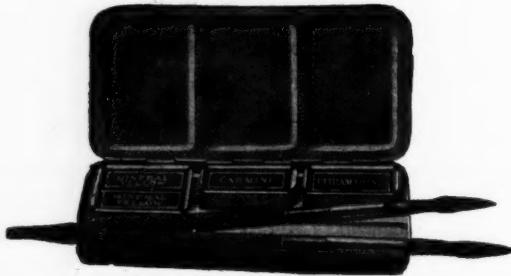
In making a negative by the McDonough process, a screen or glass plate lined or ruled in the three fundamental colors as

above, is placed in contact with an Erythro dry plate, an exposure is then made, the light from the object photographed passing thru a Chromatic Balance Shutter or filter, which is adjusted to the hood of the lens, and after the exposure, the plate is developed in the usual way. This negative when viewed closely shows fine linear areas of different degrees of density. These areas represent the different values of the color of the object photographed, as the light from it passes thru the lined "taking screen" in the camera. This "taking screen" lined in the three colors absorbs or transmits the color from the object just in proportion as it requires a mixture of part or all of these three colors to produce the colors in the original subject.

One of the newest features of the McDonough system is the Kolorskop which is the outgrowth of a demand for exhibiting the McDonough natural color pictures. Either of the instruments mentioned above can be used by the amateur photographer. They will be of great benefit to teachers of science who are accustomed to use the camera in their work.

New School Paint Boxes.

School authorities, who are considering the purchase of art materials, can certainly find a great variety of attractive things on the market. Several popular paint-boxes, such as those made by the Prang Educational Company, by Devoe, Reynolds, and by the Milton Bradley Company, have already

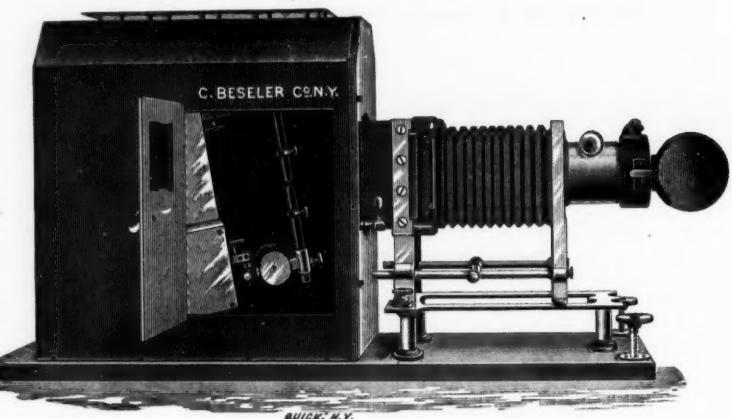


been noticed in these columns. A new candidate for favor appears in "Chicago Water Colors, No. 1," made by the C. M. Barnes Company, 106 Wabash avenue, Chicago. It consists of one cake of carmine, one of ultramarine, and two of mineral yellow. These are of good quality as are the brushes which go with the box. The outfit was originally designed for the public schools of Chicago where it is in universal use; it has gained favor elsewhere in the Middle West, and has been adopted by several Illinois towns.

Most of the water-color boxes on the market, like the one shown above, contain cake colors which are undoubtedly the best for young children or where rigid economy must be practiced. Many art teachers, however, prefer the tube colors and



it is only the expense of the imported tubes which has kept them out of the schools. The Milton Bradley Company, of Springfield, Mass., has prepared a special set of tube colors for schools above the primary grade. The set includes the six standards and about twenty artists' colors. These are so prepared that they will remain moist out of the tube. This quality is in the direction of economy since any surplus paint left on the mixing pan, need not be washed off and wasted. Their success with these paints proves the falsity of the idea that we have no good color-men in this country.



The Stereopticon Used in New York.

The contract for the stereopticons of the whole system of New York free public lectures was this year awarded to the "Museum" single stereopticons and the "Institute Dissolving Stereopticons", made by the Charles Beseler Company, New York. These are of the newest type of stereopticons with electric light appliances, and for high grade work they are said to have no superior. They are fitted with a new improved combination of first quality condensing lenses warranted to produce a perfect disc on the screen. The dissolving key will not darken the screen, and it is arranged for use with compressed gases direct from the gas cylinders. The objectives are provided with front shutters which are of great value for producing special dissolving effects. The hood, or light casings, are made of a very fine quality of Russia sheet iron and are ventilated perfectly. The same firm is also getting out a magnificent tripe stereopticon for lectures in large halls.

Drawing and Note Tablets.

The Atlas series of drawing and note tablets ought to become very popular in high schools, academies, normal schools, colleges. These tablets are much more convenient than drawing and note paper, either in bound form or detached sheets, for the following reasons:

1. They render the use of drawing boards and thumbtacks unnecessary.
2. They afford a convenient form for keeping the paper in good condition for ready use.
3. They enable the instructor to take up completed drawings and descriptions to be inspected, at his leisure, without interrupting the regular work of the pupil.
4. They render it easy to discard unsatisfactory work, which the pupil may be required to do for a second time.
5. They enable the pupil to remove sheets and thus avoid the danger of injuring work already completed.
6. The covers and fastenings afford a convenient way of collecting and temporarily binding work which has been approved and returned by the instructor.
7. Work completed and temporarily bound is easily available for classification and arrangement and for permanent binding if desirable.

The diagrams given on page 422 show the construction of these tablets. They are made by the Central School Supply House, Chicago.

School Telephones for Columbus.

The building committee of the Columbus, O., school board have authorized bids for telephones in thirty-seven school buildings and four extensions in the Library building connected with central office but operated by the board of education. Proposals have already been received from the Central Union, the Blake Equipment, and the Citizen's Company.

In Cincinnati, too, the telephone is becoming a recognized feature in the equipment of schools. A recent installation was in the Walnut Hills high school, where a complete system of the auto-telephones made by Simplex Interior Telephone Company was brought in to connect the principal's office with the various departments of the school. The same system has recently been installed in the schools of Rochester, N. Y. One of the advantages of the Simplex Interior is its fire alarm attachments, which will tend to minimize the danger of a panic in any school building into which it is introduced.

Educational Trade field.

"What we are all looking for," said Mr. A. M. Strong, of Allyn & Bacon, the other day, "is men who are competent to write commercial text-books. With commercial high schools going up all around us, the supply of really good books in this line is exceedingly limited. There are already enough of the manuals dealing with technical processes of stenography and type-writing and business law, but there is still room for works of a broader nature. For instance, what a field there is in publication of commercial geographies! Something, I know, is being done in that way, but it is by no means adequate to the demand. Doubtless as good teachers are developed in commercial high schools, we shall have plenty of good books."

The J. B. Lippincott Company has concluded the purchase of a large block of real estate, opposite Washington square, at Nos. 227 to 229 South Sixth street, Philadelphia. Work has already begun on an eight-story building to be erected on this site. It will be fitted up with the latest improved machinery for printing and binding the Lippincott publications.

So great is the current interest in Herbart and his theories of education that D. C. Heath & Company have issued an especial announcement of books relating to "Herbartian Doctrine and Literature." It contains a brief summary of the Herbartian positions with respect to questions of education, and a descriptive list of the various publications in Heath's Pedagogical Library, which are pertinent to the subject.

D. Appleton & Company on October 8 filed articles of incorporation with the secretary of state at Albany. The capital is \$3,000,000 consisting of shares of \$100 each.

Mr. L. T. Savage, a well-known art dealer of London, England, has taken the agency for the art reproductions of the J. C. Witter Company, New York.

The Easy Chair of *Harper's Magazine* is about to be revived with Mr. William Dean Howells in charge. This department was made famous by George William Curtis; since his death it has been omitted. Mr. Howells will also act as literary adviser to the reorganized house of Harper & Brothers.

The attendance at the Saturday morning class for teachers of the Prang Educational Company, 5 West Eighteenth street, New York, was so unexpectedly large at the first meeting, October 20, that three sections had to be made where only one had been provided for. As might be expected Manager W. E. Cochrane and Miss Gould, teacher of the class, were found that morning in a very happy frame of mind.

"The educational value of the colored supplements was impressed upon me for the first time," said Mr. Coffin, of Williams & Rogers, "when I visited a little country school, the other day, way out in New Jersey, and found a row of color plates from *The Teachers' Institute* hung upon the walls. The children had written compositions upon subjects suggested by every one of them. I used to have a distaste for such things on account of the yards of pansies I saw stuck up in places which they failed to adorn, but I can see that, in the school, the really good colored print is of great aid in teaching."

"Results Secured by Frick Clocks" is the title of a convincing booklet gotten out by Fred. Frick, Waynesboro, Pa. It contains personal letters from a great number of prominent educators. Among others we note the testimonies of Dean Edward R. Shaw, of the New York university school of pedagogy; Dr. John T. Buchanan, principal of the boys' high school of Manhattan; and Mr. J. A. Browning, principal of what is conceded to be the best equipped private school in New York.

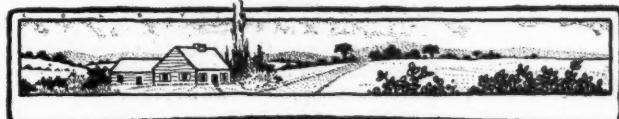
The board of education of Toledo, Ohio, has just placed an order for a large supply of the articles comprising the "Holden System for Preserving Books," manufactured by the Holden Patent Book Cover Company, of Springfield, Mass. The thorough appreciation of the Holden articles is shown by the company's ever increasing business.

The contract for furnishing books to the Iowa school district libraries has gone to the St. Paul Book and Stationery Company. The contract runs for two years and is worth from \$50,000 to \$75,000 a year. Conditions in Iowa are especially favorable to this branch of educational endeavor. Each school district sets aside from five to fifteen cents per pupil, out of the annual apportionment, for the purchase of books recommended by the state board and sold at fixed prices under the contract.

The Perry Pictures Company held their annual reception and souvenir day at the New York office, October 13. A beautiful souvenir was given to every purchaser of pictures. So many purchasers turned up that the supply of souvenirs was dangerously near being run out by closing time. The Perry people report a great demand for their pictures on the part of Sunday schools. One church in Brooklyn sends them regularly, every week, an order for three or four hundred pictures.

The Isaac Pitman Phonography and "Complete Phonographic Instructor" has recently been adopted in the following schools and colleges: Kansas City (Mo.) manual training high school; state agricultural college, Fort Collins, Colo.; West Side high school for women, New York city; Harlem Y. W. C. A., New York city; home correspondence school, Springfield, Mass.; Baptist female university, Raleigh, N. C.; Mound city business college, St. Louis, Mo.; Ventura (Cal.) high school; Milford (Me.) high school; Westfield (Ind.) high school; Redding (Cal.) high school; Hesser school of business, Manchester, N. H.; Pictou (N. S.) academy; normal college, Basic City (Va.); Danville (Va.) commercial college; national park seminary, Forest Glen, Md.; and high schools of Stapleton, (S. I.); Coldwater Mich.) business college.

The firm of Ginn & Company deserves great credit for its artistic little announcements of new books. One recently sent



out, regarding *Cyr's Readers* is a model of what a circular announcement should be, strikingly attractive, yet in no way vulgar and clap-trappy.

The science department of the Central School Supply House, of Chicago, has been sold to the Central Scientific Company, with offices at 59 South Canal Street. The purpose of this change was to give an old and faithful employee, Mr. Charles A. Bengston, an interest in the business. The ownership of the scientific business does not change, except that Mr. Bengston acquires a financial responsibility. The entire establishment is under one roof and ought, with its increased capital, to have great success.

The Gillott Pens were awarded a Grand Prix at the Paris Exposition.

"Office Methods and Practical Bookkeeping" and "Lessons in Munson Phonography" have been adopted for use in the commercial departments of the Chicago high schools.

Mr. D. C. Heath delivered a notable address at the meeting of the Wellesley, Mass., Education Association, October 22, upon the topic, "The Work of Educational Associations." This is a subject of especial interest to Mr. Heath who believes heart and soul in the co-operation of home and school.

The Berlin Photographic Company, New York, reports the accession of several interesting series. One of the most popular will be a set of photogravures of the works of Sir Edward Burne-Jones. They are also issuing a portfolio of the masterpieces of Grosvenor House and a new series from the National Gallery, London.

This year the Bay View Reading Circle offers a popular reading journey thru England, Ireland and Scotland, when their history, literature, and institutions will be studied in a thorough systematic and most delightful way. The circulars and illustrated *Bay View Magazine*, and helps in organizing local circles can be obtained by addressing Mr. J. M. Hall, Flint, Mich.

The organization now enrolls nearly 8,000 members and the popularity of its courses with other literary clubs is indicated by the hundreds of women's and other clubs that have adopted it.

Employees and officers of the Smith-Premier Typewriter Company, at the factory in Syracuse, N. Y., contributed \$275.15 to the Galveston Relief Fund.

The University Publishing Company has an excellent selling book in Maury's Elementary Geography. The book has already been adopted in forty-eight of the seventy-five counties of Mississippi.

The Omaha, Neb., school board committee on supplies has authorized the purchase of Smith-Premier and Remington typewriters for use by the students in the commercial courses at the high school.

The Conditions for Trade with South America.

The firm of D. Appleton & Company probably sells more school-books and scientific works in South America than all the other American publishing houses combined. Their agents have been in the field for a number of years and have exploited every country of South America where Spanish is spoken. Some remarks coming from Mr. Marcos G. Puron, head of the Spanish-American department of the Appleton's may be interesting:

"There are two great hindrances," said Mr. Puron, "to doing profitable business in South America. One is the instability of government, the other the silver basis upon which the currency of all South American countries is founded. A good instance in the Republic of Colombia where a revolution is now going on. We have an agency there and have always sold a great many books. Now all at once, on account of the war, sales have almost completely ceased, and there will be no resumption of them until peace is established. The countries of Central America, too, are so frequently disturbed that we have great difficulty in keeping up profitable relations with them."

"The currency trouble is of course a permanent one. At the current rates of exchange the prices of our better books seem almost prohibitive to the Spanish-Americans accustomed to get articles at about the same price as with us and in a currency that is only half ours in value."

"Yet, in spite of discouragements, the field is a good one. Our own business has grown to considerable proportions and we think that as a result of the Pan-American Exposition at Buffalo, it will expand further yet. The most progressive countries at the present time are Argentina, Chile, and Mexico, but other countries are waking up."

"Competition is already very keen down there. That is to say, there are plenty of local publishing companies, dealing for the most part in a cheap line of books, and the leading European publishing houses have their representatives in South America. In particular the Spanish houses, of which we know very little in English-speaking countries, are exceedingly active and ready to meet competition from the United States."

"I attribute what success we have had largely to our policy of re-writing every book we publish with special reference to the needs of Spanish-Americans. It is a very expensive process—much cheaper to turn an English book over to a mere translator and bid him do his best, or worst, with it. The fact is, the translated book will not sell down there as a rule. It ought to be practically re-written by a South American educator who knows what to omit, what to add. Simply to translate a United States geography, for instance, is to produce an absolutely unsaleable book for South American schools. The general features of our own geography, have been preserved, but a great many things have been changed. The number of pages devoted to the United States was greatly reduced and the section given over to South America very much expanded."

"The tastes of the South American people run very strongly to science. Appleton's science primers and such works have a very large sale."

Other Features of the Trade.

Along with their scientific tastes the Latin-Americans are very much devoted to everything that pertains to geography. Rand, McNally & Company say that the sale of their maps in all the countries south of the Rio Grande is encouragingly good. It is best in Mexico and Venezuela, but large everywhere. Even in the more backward sections, far in the interior of Brazil and in the upland valleys of the Andes, the Protestant missionaries carry maps with them as an indispensable aid in their teaching. They find, as all find who teach Spanish-Americans, that the appeal to the eye must be strongly made.

It is probably this love of graphic representation which makes South America a rich field for the art publishers. Al-

ready the Perry and Witter pictures are on the market in several cities of the southern continent. Mr. Witter has recently made arrangements with a house in Buenos Ayres to handle his reproductions in the Argentine Republic with an assurance that the business will amount to a number of thousand dollars a year.

The Present Standing of Vertical Writing.

The recent action of the convention of New York State school boards in voting that it is wise to continue the use of vertical writing in the schools of the commonwealth will go far to restore a feeling of confidence among the publishers if any were feeling disturbed. They were represented not long ago by one of the New York dailies as being in a state of trepidation lest the large amount of literature bearing upon the vertical system should be rendered useless. No such feeling, however, has been noted by THE SCHOOL JOURNAL. A few representative opinions may be given:

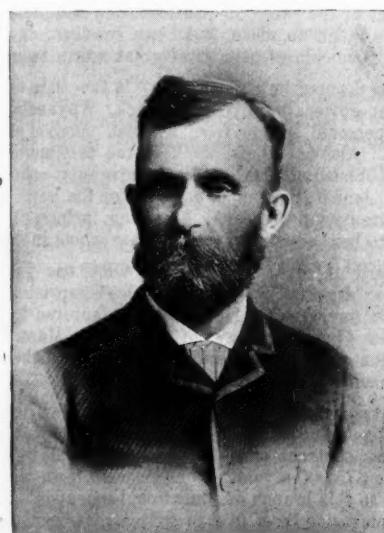
Mr. Gunnison, at the establishment of Silver, Burdett & Company, said that the action of the recent convention of New York state superintendents was conclusive that the revolt against vertical writing is merely a local New York city affair and that too much importance should not be given to it. In his opinion several firms which are now arranging for series of so-called "intermediate" writing books are making a great mistake and will find that they have unsalable material on their hands.

At Rand, McNally & Company's, Mr. McMaster said that, as the manifesto was simply a recommendation and not an order, it is doubtful if many principals of New York schools will be willing to make the change unless great pressure is brought to bear upon them. Probably a few principals who want to stand in with the authorities will discard the vertical writing but it is a known fact that there is absolutely no call among the teachers for a change.

"The states of Washington and Delaware have just adopted vertical writing for a period of five years," said Mr. Pratt, of Potter & Putnam, "and we have not heard of a single case, outside of New York city in which it has been discarded. In the new possessions it appears to be the only kind used. Our own vertical writing chart has recently been adapted for use in the schools of Porto Rico. Only the other day we had a letter of inquiry from Supt. Atkinson in the Philippines. Looks like a revulsion against vertical writing, doesn't it?"

"The fact that nearly all the primers and reading books of the day have the vertical script will prevent any rash changing."

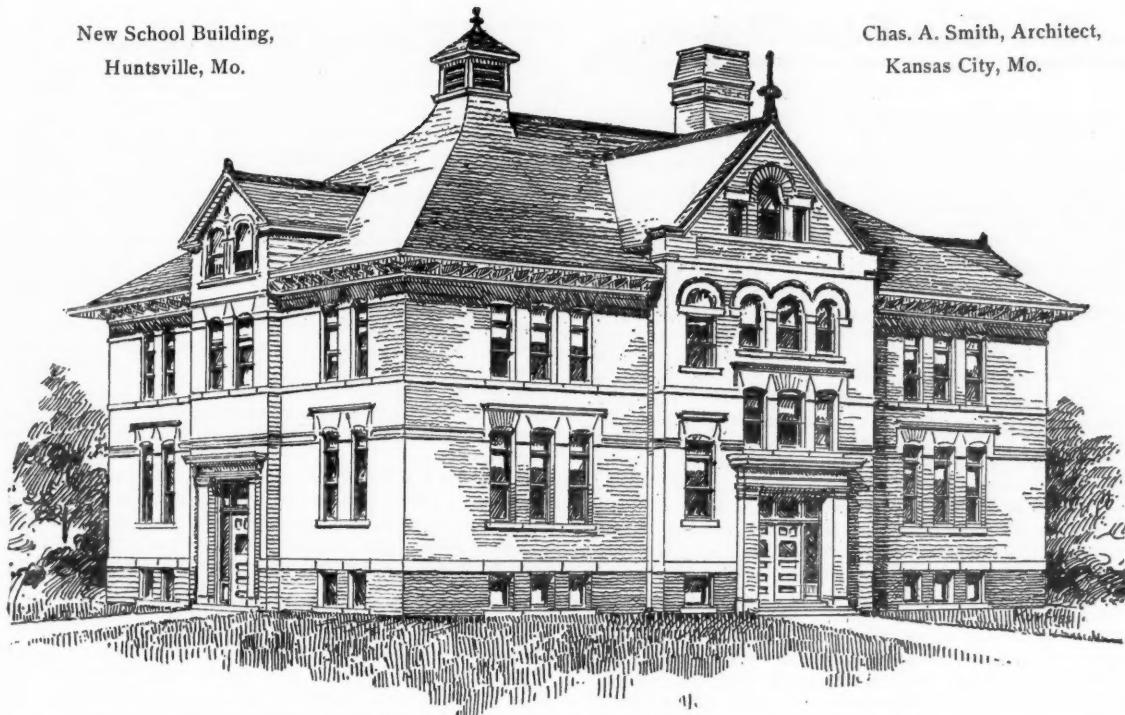
"The New York board of education is taking a great step backward in trying to discard vertical writing," said Mr. Patton, of the University Publishing Company. "It is hard to see what is the animus of their attack unless some of the writing masters who used to be very numerous in this neighborhood have been working upon the sympathies of the school authorities. The vertical system has undoubtedly resulted in great hardship among professional teachers of handwriting. Of course that is the way with every labor-saving device. We find no signs of diminishing popularity of the vertical system. On the contrary the few places we know of where the slant system still prevails are about ready to change."



Supt. George Griffith,
President-elect of the New York State Council of City and
Village Superintendents.

New School Building,
Huntsville, Mo.

Chas. A. Smith, Architect,
Kansas City, Mo.



Hints on Forming School Libraries.

An excellent leaflet issued by Ginn & Company, with reference to the foundation of school libraries in the state of Maryland, contains suggestions that are of general usefulness. Part of the text of the circular is as follows:

If you have not a school library get your pupils interested in the subject at once. Let them feel that a responsibility rests upon them. Arrange with them a school entertainment, and charge a small admission fee to provide funds to make the start. If you already have a library, pursue the same means to increase it.

Our Washington certificate plan has provided many schools with libraries. It also furnishes a fine portrait of Washington for the adornment of the school-room wall. The picture, a copy of the famous Stuart portrait (size 22 by 28 inches), is given free with ten dollars' worth of library books from our list. We furnish small certificates which may be used in soliciting ten-cent subscriptions for this purpose.

Do not purchase ready-made libraries. Study the needs of your pupils. Select such books as are best adapted to their age and abilities.

Do not buy poorly printed, cheaply and gaudily bound books, such as are sold in department stores or over the bargain counter. Good editions cost but little more and are much more economical in the end, as they always outwear the cheaper books.

Do not accept donations of old books from patrons and friends of the school unless the literature is thoroughly good, and such as you would yourself select. Nothing quenches a pupil's interest

in the library so quickly as the appearance of a number of dry, unreadable, forbidding volumes. Let the library contain no book that is not *alive*.

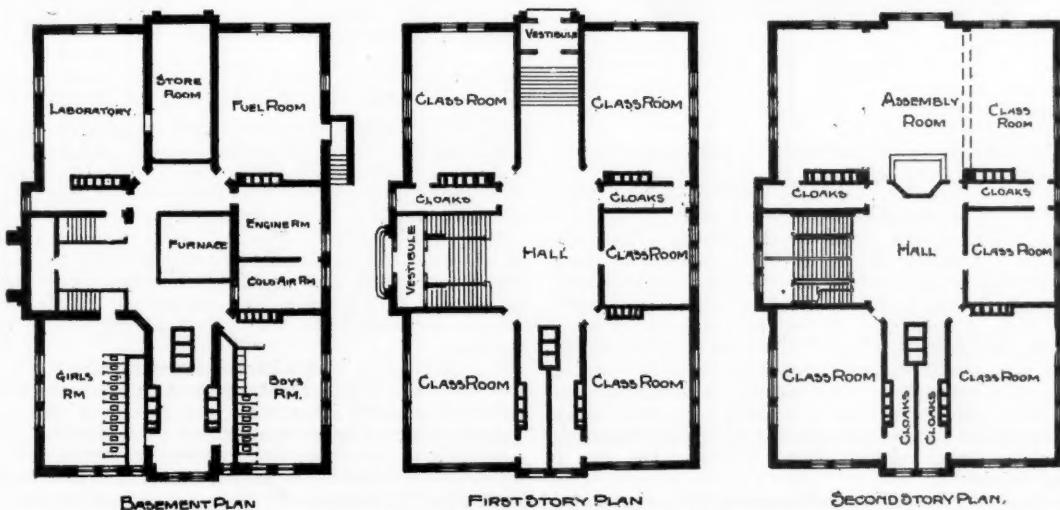
In addition to the reading or circulating library of the school, you, of course, regard a good reference library as a necessity. Books on history and literature that will supplement the work of the text-book or give the pupil a wider view of the subject—historical fiction to emphasize the spirit of a given period and to portray conditions of society, travels to illustrate geography, nature talks to furnish side lights upon elementary science,—there is hardly any limit to the number of valuable books which can be advantageously placed within the pupil's reach. Information which is *discovered* in this way by the pupil is more effective than that derived from the text-book.

Number each book plainly with ink. Make one of your older pupils librarian and have certain rules about taking out books for home reading or for reference. Have every detail of management carried out as if it were a large public library.

Above all, teach your pupils to use the library. Make reference to it in the recitation, indicating what books are helpful in special lines. You will find your pupils gaining a broader culture, a habit of investigation, and a love for reading.

The school law of the state of Maryland provides that *any teacher raising ten dollars for a library shall be given a like sum by the school board*.

Many of your fellow-teachers have libraries in their schools. Why not you? It is such zeal as this that commands the love of the pupils and the respect of parents and trustees. Libraries attract pupils and maintain a better average attendance. Try it and see if this will not be your experience, as it has been that of many teachers from whom we have heard.



SCHOOL BUILDING-HUNTSVILLE, Mo.

CHAS. A. SMITH
ARCHITECT
KANSAS CITY, Mo.

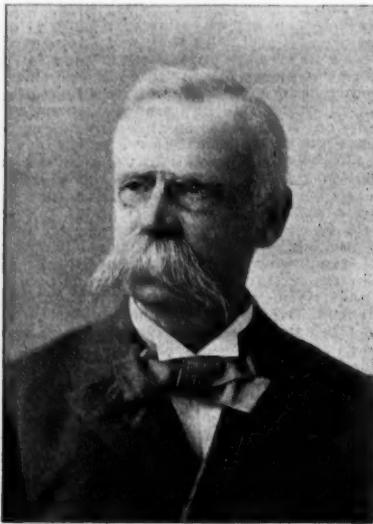
Our Text-Book Makers.

W. B. Powell.

Like so many others who have won success in life Mr. Powell taught school while getting his education. He was entirely dependent upon his own exertions. His first experience as a teacher was in a country school at \$16 a month, and "boarding round." This was in the fall and winter of '59 and '60. Since then he has been continuously employed until the present year.

During these forty-one years he has risen by being called from the district school to the village, to the small city, to a larger city, and, finally, to the national capital. In the last two places, at Aurora, Ill., and at Washington, he spent more than thirty years in active service. In Illinois he was a power among educators and since coming East he has become known everywhere as a robust educational thinker. His career has been marked by close study, profound thought and careful conservatism in action. Having worked his way up from the bottom, he is familiar with every detail of educational work. Mr. Powell has not written so much for the educational press as he perhaps should have done since no man in the country has more to say or can express himself more vigorously. In earlier life he wrote a great deal more than he has of late years when administrative work has demanded most of his time and energy.

Mr. Powell was one of the earliest advocates for broadening the reading work of the child, and he has done much to influence teachers to use supplementary reading matter and to teach their pupils to read by subjects broadly and, in the upper grades, to study masterpieces as entities. Another effort of Mr. Powell's early career was that of introducing elementary science into the grades below the high school. His work, as shown at the Philadelphia Centennial in 1876 so favorably im-



pressed the commissioners of education of France that Mr. Powell was asked to furnish a detailed account of it for the use of the French government. Mr. Powell was also a pioneer in the introduction of drawing and music at a time when such studies were thought to be merely fads.

Mr. Powell's most notable achievement, however, has been in the direction of manual training. This subject he succeeded in getting into the schools of Aurora at a very early date. What he has done at Washington is a matter of recent history. In no other city of the country is manual training so generally and thoroughly secured by the study of other branches of education. It is all properly correlated. The right kind of manual training, Mr. Powell has always insisted, is not a mere additional study, a relief from the severe intellectual tasks of arithmetic and grammar; rather it is a means of getting discipline and manual dexterity which will help in learning, representing, and applying other branches of education. And on the other side the training in handwriting, arithmetic, and such subjects has been so designed as to aid materially the acquisition of handiness and taste that will further the aims of manual training.

The demonstration of the effectiveness of this sort of correlation is one of the most valuable achievements of modern pedagogy. By a correct correlation neither manual training nor nature study is found to be a burden. Neither is it to be taught as an end but as a means. Yet most valuable technical

results are shown, not as primary products but as by-products.

Thus, too, Mr. Powell has emphasized the study of English from the earliest years of his career as a superintendent, believing that the child should get his knowledge of our language by making English in the expression of what he wants to say, and that he should secure manual dexterity by representing what he has learned or by applying it to the necessities or pleasures of life. Thus in the lower grades there are no times set apart for manual training or science study. The child is engaged in representing in idiomatic mother tongue what he has found out, or in applying what he has learned by use of hand and eye, being guided in both these efforts by the skilled teacher.

One of the cardinal points Mr. Powell has made in his supervision when training or directing teachers is that the child properly interested by the exercise of his natural activities will not dislike to go to school. In this way only can truancy be prevented. It is the superintendent's duty so to study the questions of education that he can adjust the child's employment in a way to cure rather than to punish truancy. It is a fact that the Washington schools have been remarkably free from this evil.

Mr. Powell has done considerable in the way of authorship of text-books. Many years ago the Cowperthwaits published for him three books which had a large sale and exerted a lasting influence. These were entitled, "How to See," "How to Talk," and "How to Write." Later on he was joint author of a series of nine readers, known as the "Normal Course in Reading," and more recently he has written an English grammar for upper grade pupils and a "History of the United States" for intermediate grades. These are evidences of a busy life.

Mr. Powell was one of the founders nine years ago of the National Geographic Society of the City of Washington and has been a member of the board of managers ever since its organization. This society besides doing a valuable work in directing geographical investigation has exerted a direct influence upon the teaching of school geography. Mr. Powell has been able to utilize for purposes of instruction a great deal of the material brought out in the society lectures and reports. Perhaps the strongest point of his geographical creed is his dictum that the social surroundings of the child are his chief educators and that they therefore furnish a valuable point of departure. The results of the geography teaching in Washington have been such as to interest hundreds of visitors.

Thru a study of the Washington school report one sees that all the vital questions relating to the education of the people of a city have been considered. The vexed question of promotion is settled by individual attainments, but Mr. Powell argues against pushing children rapidly thru a narrow prescribed course, believing that it is more harmful to promote in some cases of apparent brightness than it is to "mark time," and that mere marking time must be obviated by enriching the course of study and providing broader lines of work for the child who can do more than the prescribed course. Thus children are not pushed into grades for which they are unfitted because of immaturity. Large libraries, varieties of text-books in arithmetic, history, geography, and materials for scientific investigation afford abundant means for the satisfactory employment of children. Unwise promotions are thus prevented. A child who has learned broadly is more certain to pursue his studies after leaving school than one who is pushed rapidly thru a narrow course.



"Without Honor in His Own Country."

Supt. C. B. Gilbert, of Newark, is the author of the series of school reading books, "Stepping-Stones to Literature." The series is now used in nearly all the schools of New Jersey except in Newark. Under the new state law the author may not have his books introduced into his own town.

This seems like petty tyranny. Yet there are some makers of text-books who for conscientious reasons prefer not to have their own books in their schools. Such a man is Prof. George M. Whicher, of Teachers college, who has consistently avoided his own excellent Latin text-books and used those of other teachers.

His argument is that a teacher can learn more thru studying the modes of presentation adopted by other men than in following slavishly along in his own groove. A man is sufficiently hampered by his own methods, which should so far as possible be universalized, without inflicting upon himself additional hindrances of personal equation. This, in addition to the feeling that the teacher's profession, should be free from the slightest suspicion of anything mercenary has actuated Prof. Whicher. It is probable that most of the industrious makers of text-books, in this country, will regard his position as one of hyper-criticism.

Notes of New Books.

A General Physiology for High Schools, based upon the nervous system, by M. L. Macy, L. B., assisted by H. W. Norris, A. M., professor of biology in the Iowa college. This text-book is based upon the nervous system,—a radical departure from the usual method. Nervous action is considered as the primary feature of animal life, and particularly that of man, with mind his crowning feature, while the various vegetative functions are dependent upon its action. Thus the study becomes a good preparation for the study of general biology on the one hand, and of psychology on the other. The diagrams are especially fine; and many illustrative dissections and some experiments are introduced, so adding to the interest of the study of the text. Hygiene and general sanitation are made prominent. The strict medical term is given for almost every function, while it is crowded full of names of the several parts, perhaps to the extent of becoming cumbersome for ordinary pupils. (American Book Company, New York, Chicago, Cincinnati. Cloth, 12mo., 408 pages. Illustrated. Price \$1.10.)

Elements of Plane Trigonometry, by W. P. Durfee, of Hobart college. This short, concise text-book differs from others of similar scope in the amount of practice it gives in computation. The author insists that, to insure accuracy, the computer should be on the constant watch for errors and should test every step. He says: "The computer, who makes no mistakes, can hardly be said to exist. Such a one would be a marvel. The ordinary man who forms the habit of not letting a mistake go uncorrected is more trustworthy than the marvel who does not verify his work." (Ginn & Company, Boston.) E. W. TAPLEY.

A History of American Literature, by Prof. W. C. Bronson, Brown university. Pupils will find this book interesting and inspiring, and teachers will be pleased to find them led to a desire to read standard authors. The greater authors are dwelt upon at considerable length, the minor ones being given a relatively small space. The author has had the privilege of working from rare first editions and has thus brought forward some new material. Some of the unconsciously humorous titles given in the bibliography of the colonial period will be enjoyed by readers and will be seen to be illustrative of the time when written. The appendix contains extracts from writings of Anne Bradstreet, Cotton Mather, and other early writers. (D. C. Heath & Company, Boston, 360 pages, 80 cents.)

Lessons in Language, by J. N. Patrick, A. M., gives a methodical and graded system of thought-inspiring lessons in the use of language. In preparing the lessons the author has kept in mind the well-established pedagogical facts: first, that pupils only to learn to do by doing, and second that what the average pupil can do depends almost wholly upon what he is required to do and by whom it is required. What most pupils need is not rules and definitions but practice in the use of good English; hence the book provides much work in composing. Outlines for composition constitute a distinctive feature. Grammatical definitions and facts are introduced as they are discovered in the development of the language exercises. The book is designed for use in the third and fourth grades of graded schools, and during the third and fourth years of ungraded schools.

Lessons in Grammar, by the same author and in the same series (Lippincott's Language Series,) presents the essential facts of English grammar clearly and concisely. Technical discussions and distinctions are avoided. The topical method employed will, it is believed, awaken in the pupil a deep interest in the study of grammar. He is required to think grammatical facts and forms into original sentences. Theory without practice avails little or nothing in the study of English. The book is divided into two parts. Part I. is designed for use in the seventh grade of graded schools, and in the seventh year of ungraded schools; Part II., for use in the eighth grade of graded schools and in the eighth year of ungraded schools. (J. B. Lippincott Company, Philadelphia.)

Experimental Chemistry, by Lyman P. Newell, Ph. D., Instructor in Chemistry at the state normal school, Lowell, Mass. Dr. Newell is convinced that a study of chemistry, which shall develop power, must combine careful laboratory work in which the student has received just the directions sufficient to lead him to observe the essential, close study of the text, and sufficient drill in recitation to fix the essential facts and develop correct reasoning. So, while following the standard experiments to teach the properties of the leading elements, he combines with them numerous quantitative calculations and many problems for individual study. The result is a book that

must lead to better training than the teacher usually secures. His treatment of carbon compounds is admirable. (D. C. Heath & Co., Boston. Price, \$1.10.)

Messrs. Longmans, Green, & Co., have brought out a new volume in their well-known series of English classics, *Julius Caesar*, edited by Dr. George C. D. Odell, of Columbia university. It is sufficient to say that the present volume is fully up to the standard set, by this series of classics, which has attained such wide success. It will be recalled that Longmans' series of English classics is under the general editorship of Dr. George Rice Carpenter, of Columbia university, and the list of editors embraces many of the best known names in American education. Dr. Odell's *Julius Caesar* contains a number of interesting features which place it among the most available editions for schools published. It throws emphasis thruout on the drama, as a drama rather than as a poem, and is well adapted to introducing pupils to systematic reading of Shakespeare. It is prepared by a scholar who has had ample experience in secondary teaching as well as in the duties of a college examiner.

Another important text-book of the year is a new *Trigonometry* by Dr. Daniel A. Murray, of Cornell university. In some respects the book differs from most text-books on this subject, both in the arrangement and in the manner of presentation. A feature that at once commends itself is its fullness. It contains more reading matter than is usually given in a trigonometry, and therefore its explanations are much clearer and explicit. Then, too, Dr. Murray has introduced, in the book, a number of historical notes, as well as an historical sketch, which will give the student some idea of the development of trigonometry, and the men of various times and races who have helped to advance the subject. In scope, it deals with the subjects usually taken up in trigonometry in secondary schools and colleges, and treats of the topics usually required for teachers' certificates for entrance to college, and for examinations in trigonometry in the first year of the college curriculum.

Caesar for Beginners a first Latin book by Prof. W. T. St. Clair, of the Louisville male high school, which appeared some months ago, has already established itself in many prominent schools. This book is a most practical one for beginners, especially in high and preparatory schools; instead of beginning with miscellaneous exercises, which have no direct bearing on the second year work in Latin, this book starts at once on simplified Caesar and leads the beginner very carefully and gradually up to, and thru, the second book of Caesar (which is complete in the volume), so that when the student has completed this book in the first year, he is thoroly launched and is able to take up his second year work intelligently and without the usual difficulty experienced. The book has a Latin-English vocabulary of over 500 words, and contains all the grammar necessary for first year work.

There are many other important new books announced in Messrs. Longmans, Green, & Co.'s little folder of new books and announcements for the Fall, which will be of special interest to all teachers.

Recent Legal Decisions.

(Other reports of recent legal decisions bearing upon school affairs will be found on page 440.)

No Damage for "Good Will."

The city of Philadelphia recently condemned for a schoolhouse a piece of land with buildings at 1421 Race street. The premises were occupied by a candy manufacturer who claimed \$12,000 as the real estate value of his property and \$2,000 as the value of the "good will." The condemnation jury eliminated the latter item and awarded the owner \$12,600. A suit was the result, ending in a victory for the city. Judge McCarthy, of Court No. 3 handed down the opinion that, while "good will" must be recognized as a valuable business asset, it cannot in any way be said to inhere in the freehold. It is undoubtedly personal estate, and is an incident of the business rather than of the premises where the business is carried on.

Reversal of Discharge by Superintendent.

An Iowa teacher was discharged. She at once brought an action for breach of contract under the Iowa law (Code 1873, sec 1829) which makes an appeal by the teacher a pre-requisite to such an action. The superintendent of public instruction promptly reversed the action of the board of directors and his decision was adjudged by the courts to be conclusive. The attempt of the school directors to show that their decision was based upon a failure to give the teacher notice of hearing was held not to alter the status of the case. *Jackson vs. Independent School Dist., Iowa, S. C.*, June 9, 1900.

The School Journal,
NEW YORK AND CHICAGO.

WEEK ENDING NOVEMBER 3, 1900.

Union-Made School Supplies.

Attempts have been made in various parts of the country to force boards of education to receive only union-made goods and to employ only union labor in the building, reconstruction, and repair of schools. A few committees have shown themselves weak enough to submit to such unreasonable and un-American demands. Under existing laws no official restriction to union-made goods can ever be successfully upheld.

No power on earth could make the designer of a new piece of scientific apparatus bow to trades-union rules, nor should the advantages which the use of his apparatus affords be withheld from the schools because it has no union label attached to it. Must an artist limit himself to union-made paints, brushes, and canvas in order that his work shall be admitted to the schools? Must the author of a meritorious text-book make sure that the result of his study and toil is brought upon the market by union printers and binders? The proposition to extend the rule of trades labor unions over the public school systems is ridiculous, preposterous, mischievous.

What has the question of trades unions to do with school supplies, anyway? Expert labor commands good prices anywhere and everywhere. Thus by selecting the very best books and apparatus and accepting only the most perfect work obtainable, the school committee is doing all it can be reasonably asked to do as regards non-support of cheap labor. The only thing to be considered is relative merit. The publisher or school-supply manufacturer must have few claims to recognition if he seeks to secure the introduction of his goods on the ground that they are union made.

Consultation with an eminent legal adviser strengthens THE SCHOOL JOURNAL in the belief that any by-laws of a board of education officially restricting purchases and contracts to union labor can never stand the test of appeal to the courts. These by-laws are unconstitutional, interfering with the most elementary rights of individual liberty. The demagog must keep his hands off the schools.

Partisanship of the "Official Organ."

"The Bulletin of the New York State Teachers' Association" is the title of a four-page sheet issued at the rate of twenty-five cents per year, that has thrown discredit upon the organization of which it purports to be the official organ, by heading the editorial column of its September number with partisan statements and billingsgate about teachers' agencies. In cleverly worded paragraphs it suggests to readers that they ought to vote the Democratic state ticket. This in spite of the fact that the only opposition to the Davis bill increasing the salaries of all the teachers of New York city, which was introduced by a Republican senator, passed by a Republican legislature, and signed by a Republican governor, came from the Democratic mayor of New York.

If the "Bulletin" felt itself constrained to refer to the political campaign it might have pointed with pride

to the fact that both political parties are recognizing the teachers as never before. The editor's error of judgment ought to be promptly discomfited by every local teachers' association in the state.

The most influential organization, the New York city teachers association of which Dr. Ettinger is president has condemned the partisan use of the "Bulletin" in round terms. It was a mistake to have started the "Bulletin." There was no need of it; there is no likelihood that it can ever represent the educational interests of the state in a becoming manner, while there is danger of its doing much harm.

Free Public Lectures.

The popularity and success of the system of free lectures in New York city has surprised even its most enthusiastic advocates. Several cities of the country are following the example of New York. The education of those who have passed the school age, who have to work hard thru the day, whose store of energy for expenditure in intellectual pursuits is very limited, has become one of the crying needs of the day. For such workers the evening lecture, well developed upon sound pedagogical principles is a boon. It supplements in a unique way the work done in the schools. It brings education into closer harmony with life.

The New York free lecture department was first opened in 1888, when lectures were given in six places. The number of lecture centers has grown until it is now fifty-one. During the past year the attendance reached the enormous total of 538,084.

Dr. Henry M. Leipziger, supervisor of the lectures, believes strongly in the possibility of their adoption into every city, large and small, of the country. Speaking on the subject, he said: "The system, as we have developed it has proved one thing. This department is, in proportion to the benefits it brings, the most economical in our whole scheme of education. It costs surprisingly little to maintain. No great clerical force is necessary. I am able with one assistant to carry on all the detailed work of correspondence and arrangement. Rent of course does not bother us, for nearly all our centers are in school-houses or other educational institutions. Practically all our expenses for maintenance are the compensations to the lecturers and the operators.

"In return for an amount that is comparatively trifling we are doing a work the value of which is hardly yet suspected. We aim at more than entertainment. We interest people. There is a difference between interest and entertainment, you know. Even our lighter courses, while popular and amusing, have an underlying educational purpose, and our stronger courses are distinctly educational.

"As an example of what we can give our New York audiences, I might refer to the very well attended course of eleven lectures on pedagogical topics now in progress at the West Side Auditorium in Fifty-seventh street. The lecturers are Dr. Walter L. Hervey, Mr. William A. Reaser, Dr. John A. MacVannel, Prof. J. F. Reigart, Prof. M. V. O'Shea, Dr. Nathan Oppenheim, Mr. C. S. Safford, Mr. Percival Chubb and Prof. Edward F. Bucner. These men drew large gatherings. At the same time they do a work in preparing people to understand and appreciate the efforts at improvement in our public schools."

New York Principals' Examinations.

Below are given papers on several subjects used at the recent principals' examinations in New York city :

Logic and Psychology

Time, three hours. N. B.—Answer any six questions.

- Analyze an act of visual perception, particularly with reference to the perception of direction and distance.
- (a) What is the law of Weber (or of Fechner) ?
(b) How does it vary ?
(c) What are the limits to its validity ?
- Discuss the relation of the association of ideas to memory, Describe other conditions favorable to memory.
- What is "desire" ? Explain its relation to (a) knowing, (b) feeling, (c) willing. What determines the intensity of desire ?
- Define (or explain) and illustrate five of the following : Term, copula, proposition, connotation of terms, denotation of terms, conversion by negation, contraposition, immediate inference, sorites, major term, modus ponens, dilemma.
- (a) Show why the second figure of the syllogism proves negative conclusions only.
(b) Reduce a syllogism in Camestres to the first figure.
- Classify any two of the following arguments as to mood and figure. If a fallacy exists, point it out and give its appropriate name :
(a) Writing maketh an exact man ; and therefore, if a man write little, he had need have a great memory.
(b) Improbable events happen almost every day ; but what happens almost every day is a very probable event ; therefore improbable events are very probable events.
(c) The drama is a source both of moral inspiration and amusement. *Zaza* is a drama, therefore it is a source both of moral inspiration and amusement.
- (a) State the rules of logical definition.
(b) What is the logical order in which to teach the definitions of the following terms ; Parallelogram, polygon, quadrilateral, rectangle, square ? Justify your arrangement on logical grounds.
- Describe the inductive methods of investigation, and explain and illustrate each of its processes. What cautions are to be observed in the application of it ?

History, Civics, and Geography.

Time, three hours.

- What are the chief functions of the national government ? Of the government of the state of New York ? (12)
- Compare the local governments of the colonies of New England and Virginia. Account for the differences. (10)
- Describe the main features of the government of the city of New York. (12)
- Trace the origin of four great political parties in the United States, giving the name of each of the parties and the time at which and the circumstances under which it arose. (20)
- Explain the advantages and the disadvantages of three of the following taxes : Excise, income, stamps, licenses, the single tax. (12)
- Explain the formation (a) of dew, (b) of a cave, (c) of a tornado. (12)
- Describe the work of (a) streams, (b) glaciers. (10)
- Mention three different kinds of soil and explain the origin of each kind. (12)

Life Insurance and Teachers' Pensions.

An expert Chicago actuary who has been consulted regarding the teachers' pension system in that city has reported that in his opinion it is foolish to talk of applying life insurance principles directly to a pension fund. He gives two good reasons. For one thing the health and family history of a teacher are not consulted : in other words, all risks look alike in the pension system. Again, each employee's contributions depend, not upon his attained age, but on the amount of salary received, while the pension paid does not bear the same ratio. Ordinary

life insurance rules can be of use only in determining the expectation of life at the average age that the teachers become beneficiaries of the pension fund. Statistics covering this point have never been prepared, but can easily be gotten ready.

Max Mueller's Death.

In Prof. Max Mueller, whose death occurred this week, the world loses the greatest orientalist of the century, and a writer of world-wide reputation. Prof. Mueller showed an interest in educational problems quite uncommon among archeologists. Two countries claim him for their own, Germany as his birthplace and educator, England, as the stage of his life work.

He was a son of the famous poet Wilhelm Mueller, and a great-grandson of Basedow, Germany's most successful educational reformer. He was born Dec. 6, 1823. In 1844 he published the first fruit of his oriental studies, a translation of Indian fables. His grand work on the Rig Veda, the oldest writing in Sanscrit, occupied him for more than twenty-five years.

Mueller went to England in 1846, and two years later took up his permanent residence at Oxford, where he continued his work as professor until the time of his death.

His most monumental work was his editing of the "sacred books of the East," which comprise something like fifty volumes. His "History of Ancient Sanscrit Literature," his Sanscrit grammar, and his "Lectures on the Science of Language" have passed thru many editions. Best known to general readers are probably the four volumes brought out under the title "Chips from a German Workshop," a collection of essays chiefly treating of comparative mythology, religion, and philosophy. He published the first complete English translation of Kant's "Critique of Pure Reason," and was the author of many other books and articles. His German contributions belong, nearly all of them, in the department of *belles lettres*.

The great activity in the field of oriental literature and archeology owes much of its life and direction to Max Mueller's scholarly devotion, solidity, and enthusiasm.

Vermont State Superintendent.

Mr. Walter E. Ranger, who will succeed Mr. Mason S. Stone as state superintendent of Vermont schools, is regarded as a man remarkably well fitted for the position by educational experience. He is a man of sound scholarship, a graduate of the Milton, Me., academy, and of Bates college ('79). He has held principalships of elementary and secondary schools and was at the time of his election to the state superintendency, on Oct. 18, principal of the Vermont State normal school, at Johnson. State Supt. Ranger is a man of strong personality and great vigor. He has been prominent in the educational associations of northern New England for a number of years and is a speaker and writer of excellent ability. He will enter upon the duties of his office on December 1.

Charles Dudley Warner.

The little coterie that has made Hartford a sort of literary center is pretty well dispersed. The death of Charles Dudley Warner takes another famous member from its ranks. Mr. Warner was one of the most brilliant newspaper writers in the country, and at the same time a literary artist. For a great many years he has directed the policy of the *Hartford Courant*, of which he was chief owner. His first popular book, "My Summer in a Garden," appeared as a series of sketches in the *Courant*. Collected into book form they made their author famous.

At one time Mr. Warner

was editor of *Harper's Magazine*.

zine. Of late years his great interest outside of his literary work has been in the subjects of prison reform and the education of the negro. Among his popular works are "Back-log Studies," "Baddeck and That Sort of Thing," "My Winter on the Nile" and "Roundabout Papers."

Meeting Men Half Way.

President John M. Roach, of the Union Traction Company, Chicago, is determined to have opportunities for meeting his men on a fair footing. He purposed the erection of two club-houses for the use of employees and their families. These will have various social features and will also be used as meeting places where the president and other officials of the company can meet and talk over various changes and improvements, in the running of the road. President Roach rose to his present position from the rank of car driver and consequently has a minute knowledge of the details of street railway operation.

A Frightful Disaster in New York.

The whole country was shocked Oct. 29, by the news of an explosion in a manufacturing building in Warren street, New York, which in a moment ruined a whole business block with appalling loss of life. Only when the work of excavating the ruins is complete will the number of the dead be known. Hundreds of people were injured more or less seriously. Eight buildings were utterly ruined; many more seriously injured.

The catastrophe had its origin in a small fire which broke out in a drug manufacturer's rooms. The firemen were already engaged in fighting the flames when a slight explosion occurred, followed a few minutes later by one which jarred all lower New York as with an earthquake. Portions of the doomed building were thrown hundreds of feet into the air. One of its fronts in toppling over fell upon the station of the Ninth Avenue Elevated Railroad, wrecking it completely.

The work of digging out the ruins has already begun. The blame for the disaster, if blame there was, has not yet been established.

A Remarkable Bank Robbery.

Cornelius L. Alvord, Jr., fifty-one years of age and for upwards of twenty years a trusted employee of the First National bank, of New York, is a defaulter to the extent of \$690,000. As note teller of the bank Alvord had exceptional opportunities to steal if he was so inclined. It is said to be a banking axiom that any note teller can appropriate funds, but that the checks upon dishonesty are so many that he will be speedily caught. Yet Alvord had been making large peculations extending over a period of at least five years.

Accounts of the man's life are very conflicting and a great many improbable stories are in circulation. It would appear that Alvord was able to lead a very remarkable double life. As a business man he was apparently accurate, painstaking, and reliable, trusted by the bank directors and respected by the patrons of the bank. In his home life he was extravagant and untruthful, representing himself to be possessed of independent means which he never had. He was a race-track gambler and a speculator in stocks.

The capture of Alvord in Boston only serves to accentuate the peculiarity of his case. He gave himself up without resistance, saying that he was weary of the suspense of waiting. The money, according to his story, has all been spent, so that no restitution will be possible.

Manila Normal School.

Prof. J. E. Lough, of the State normal school, at Oshkosh, Wis., has not been elected to the new normal school to be established at Manila, as was stated last week. The announcement got into circulation in some mysterious way. It seems that Commissioner Atkinson, of the Philippines, wrote to the leading universities ask-

ing them to nominate men for the position. Harvard recommended three, among them Mr. Lough. Thus far no election has been officially announced. Professor Lough has withdrawn his name from the list of candidates. That may have been the news which gave rise to the story of his election.

The triennial election of the London school board occurs in December and already two parties are discussing the work of the present board—the one adversely charging it with extravagance in that the expenses increased in three years by \$2,150,000, and the other favorably, showing that new schools have been built, salaries of teachers increased, and the course of instruction greatly enriched. The utility of the manual training and art instruction now given is seriously questioned by conservatives on the ground that it is making boys and girls discontented with the positions in life they are bound to hold. The radicals retort that they ought to be discontented.

Twelve school buildings in the city of Chicago are reported to be worse than useless on account of the noises from the elevated roads. Teachers have to scream to be heard; pupils must wait for a little lull in the noise before attempting to recite. The nervous strain to which both children and teachers are constantly subjected is enough to wear out the strongest constitution in a short time. The business manager of the Chicago board of education has instructed the board's attorney to institute proceedings to recover damages from the railroad companies for the depreciation of school property. The progress of the case will be watched with great interest throughout the country, for the right of the schools to peaceful surroundings is one that, in most people's opinion, ought not to be denied.

Almost every nation of South and Central America has sent its formal acceptance to the invitations to join in exhibiting at the Pan-American Exposition in Buffalo. Preparations for an adequate showing of the resources of these countries have all been made. There will also be exhibits from the Philippine Islands, Porto Rico, Cuba, and the Hawaiian group. Some fifteen acres have been set apart for the court of the State and Foreign buildings on the eastern side of the grounds and a little south of the main group.

The magistrates of New York and other cities comment on the increase of youthful criminals, especially pickpockets; the last five years this has been particularly apparent. It is the practice of some of the magistrates to inquire whether the suspected youth can read and write; he always can, often writes a good hand; he has attended the public school—in fact the law compels this.

This state of things deserves the closest investigation by the teachers of the cities. It has been thought that the salvation of youth was insured if they went to school. Our opinion is that the school and home are too far apart. The teacher should know the parents; the parents the teacher. The teacher must be far more than a hearer of lessons. We would have the principal and the teachers active in social beneficence in the district tributary to the school.

The amount of gold in this country Aug. 1, 1900, was estimated (official) at \$1,053,000,000.

In the treasury 425 millions.

In the national banks 200 millions.

In the private banks and in circulation 328 millions.

There is carried abroad annually by tourists \$150,000; melted at Geneva into watches \$75.00; used by jewelers, dentists \$3,500,000.

Much gold is hoarded in India and China; it was found that the famine stricken in India had gold; they are superstitious regarding it.

The New York State College of Forestry has been asked to furnish six competent assistants for the Forestry Bureau at Manila, Philippine Islands. This bureau is an old one, having proved its usefulness under Spanish rule. The forests of the islands were a source of about \$100,000 annual revenue to the local Spanish government. It is believed that under American rule this income can be greatly increased.

The Italian government has attempted to fine one of its princes who has sold to an American a painting by Botticelli, the full value of the picture. The present difficulty is to find out who is the new owner and how much he paid for it. The art treasures of Italy are her most valuable asset and have to be guarded with Gorgon care. In the present instance the Botticelli was painted over with a modern Italian landscape and in that form exported while the paint was still fresh and could be easily removed.

Italy enjoys the distinction of being the most heavily taxed nation of Europe. It is practically bankrupt, being unable to maintain its own public works, prisons, medical clinic, and laboratories. Its state archives are for the most part decaying in damp cellars for want of dry storage which the government cannot afford to provide.

A large settlement house for carrying on educational and social work is going up in the district of New York's West side known as Hell's Kitchen. The donor is Mr. John D. Rockefeller, Jr. The new settlement will have baths, a manual training school, a cooking school, libraries, classrooms, and a gymnasium. Mr. Rockefeller, Jr., who is twenty-one years old, has taken an especial interest in school work. This is his first big donation to the cause of education.

The tendency in art education toward the study of the art of decoration is shown in the recent action of Cooper Union, New York, in establishing a day school for students intending to practice any of the decorative arts. Special instruction is to be given in the designing of furniture, fabrics, metal work, ceramics, stained glass and other branches of interior decoration.

An original way of earning a college education is that adopted by four enterprising young women of the University of Chicago who have established a tonsorial parlor for the accommodation of women students at the university. The quartet is said to have all the business it can attend to and is planning the erection of a little shop near the campus.

After giving it a trial of two weeks the Chicago board of education decided to rescind its famous "anti-pull" measure. Supt. Cooley had not during the fortnight been approached by anybody who was on the lookout for the main chance, so that it became apparent that the measure was simply a superfluous piece of legislative machinery. It transpired that most of the school trustees who voted for it in the first instance did so as a joke.

The total population of the United States is announced to be 76,295,220. This is a little in excess of the popular estimate which had put the figure at 75,000,000. The increase is about twenty-one per cent. This is a little less than the increase in previous decades and would show, if other facts did not point in the same way, that we are getting away from the primitive conditions of a "boundless, fruitful soil," upon which, according to the Malthusian theory, population will be doubled every twenty-five years. The figures indicate, however, a very normal and healthy development.



A letter by Miss Jane A. Stewart, giving Mrs. Emily Fifield's statements regarding the present status of school board affairs in Boston, will be published in THE SCHOOL JOURNAL next week.

Letters.

The School Board.

We refer to the article with the above title in THE SCHOOL JOURNAL of October 6. We quote: "In the future it may be prophesied the question will be asked: What fitness has the man for this position? We do not propose that the official should be a teacher, but insist that he should know something about education."

We wish to commend the above, but while doing so we wish also to call attention to the country schools where proper timber cannot always be found for school officials. By our present system, where each district elects its own school officers, it is often necessary to elect men who are, to speak plainly, downright ignorant, not only as to matters pertaining to education but also to books and schools.

The law, evidently, seeks to remedy this defect in the country by providing a school commissioner, whose duties are a general supervision of the country schools. This is a very proper person to have, providing the officer is not overtaxed with territory. Where he has more territory than he can possibly attend to, his supervision becomes a failure, and this condition actually exists in several counties of the state. Take for instance, St. Lawrence county, with which we are most familiar. This county has in round numbers about 2,500 square miles in which are located some 520 school districts. Deduct about 400 square miles for wilderness and it gives us an average of about four square miles to a school district. This county has three school commissioners, that is, each commissioner has to supervise about 700 square miles of territory, over very rough roads, and, if climate is considered, the commissioner's time is very limited in which to do his work. Can it be done with any degree of expectant success? We frankly assert that it cannot, and what is true of this county is equally true, of several others.

Schools without proper supervision means money thrown away, thrown away by actual time lost to the pupils in not having proper supervision of their schools. Such waste and extravagance would not be tolerated in any private enterprise by men of ordinary business ability.

The boards of supervisors have power to remedy the above defects, in part, when the number of schools in a commissioner district exceed two hundred (it should be 150 or less), by dividing the commissioner district into two. But the ordinary country supervisor is not much above par with the average school trustee and he needs the same kind of qualification as that referred to in our quotation in order to act intelligently upon school matters. These men, are, very generally, persons who are interested in school matters only in a general way. They have not that interest, which causes them to look after the schools of their own town even, helping to raise them to higher standards. Except a general interest expressed by saying, "Oh yes, we want good schools," they pay little or no attention to the schools of their towns. How many supervisors in the past year do you imagine have visited their town's schools, or know of the efficiency of these school?

The result is that supervisors cannot be induced to act and exercise even such powers as they now have. But a defect pointed out without at least a remedy suggested is open to criticism. We therefore suggest as a partial remedy that the power to form school commissioner districts be placed with the state superintendent of public Instruction, or some officer whose time is devoted to school work and who is, theoretically at least, interested in schools and has the capacity to know what should be done for proper supervision, which officer should have full power to act, taking into consideration, number of schools, territory, roads and climate. It is a grave error to leave our school commissioner districts as they now are in several of the counties and some way should be devised to remedy the errors herein pointed out. If the suggested plan is not the best let some other be adopted.

New York.

DAN S. GRIFFIN.

The Educational Outlook.

St. Louis Society of Pedagogy and Other Meetings.

ST. LOUIS, Mo.—The Society of Pedagogy began its work for the year 1900-1901, October 20. The president is Prin. Peter Herzog, of the Blair school. The program this year includes some very attractive features. The Society of Pedagogy is a voluntary association of nearly all the teachers of the city, each of whom pays one dollar for annual dues. A fund is thus created for current expenses, especially in bringing a few good lecturers each year. Several eminent educators have already



State Supt. Walter E. Ranger, of Vermont,
Elected by the Vermont General Assembly, October 18, 1900.
(See note on page 482.)

appeared before the society, among others Prof. R. G. Moulton, of Chicago.

Twice each month the members assemble on Saturday morning, in sectional meetings, at the high school. The leaders of the section meetings are not paid. They are among our strongest educators.

Supt. F. Louis Soldan appeared before one of the sections of Pedagogy, October 20. He spoke on kindergarten principles. He pointed out the folly of carrying kindergarten plays into the school course and dwelt upon the fundamental principle first propounded by Froebel of adjusting the instruction to the maturity of the child's mind. He distinguished between interesting and entertaining the pupils.

The Annuity Association met October 13, in annual meeting. The old officers were re-elected. Mr. Geo. T. Murphy is president. Very satisfactory progress was shown by the reports of the past year. A constitution was presented containing some new, and very business-like features. An adjourned meeting will be held to discuss them, November 10.

Superintendent Soldan addressed a meeting of principals, October 18, on reading. His object was to correct an increasing laxity in the teaching of this subject. He declared himself as not in accord with the idea that reading in the upper grades should be taught thru supplementary work only. The child must be trained and led up to acquiring new words and ideas and taught to use the dictionary.

W. P. EVANS.

Agricultural Courses for Rural Schools.

Supt. J. H. Lewis, of the department of public instruction of Minnesota, has arranged a plan which will be submitted to the state superintendents' meeting, in December, for teaching agriculture, horticulture, dairying, and stock raising in the rural schools. If it meets with their approval it will be drafted into a bill for the legislature. The course was worked out in detail, at Mr. Lewis' suggestion, by Prof. F. D. Tucker, of the state agricultural college.

Chicago Federation Still Scores.

The ability shown by the representatives of the Chicago Teachers' Federation, who are now in conference with the state board of equalization at Springfield, is exciting the admiration of Chicago business men. Point by point the teachers are winning the great fight for equitable taxation. They have enlisted the support of rural counties whose representatives understand well that if Cook county is allowed to lighten its quota of personal property taxation, the burden of the other counties of the state will be greater.

An example of the ease with which the federation leaders handle questions of taxation appeared October 23 when Miss

Haley appeared before the committee on corporations and, singling out the Chicago City railway, showed that it had last year been assessed only at \$13,000,000, the value of its capital stock. In point of fact its stocks are selling at 260 and its dividends amount to thirteen per cent. The conclusion drawn was that the real value of the capital stock should be figured from a five per cent. basis of dividend, giving an assessment of \$38,000,000.

Miss Haley's point was conceded by the committee; it still has to come before the state board.

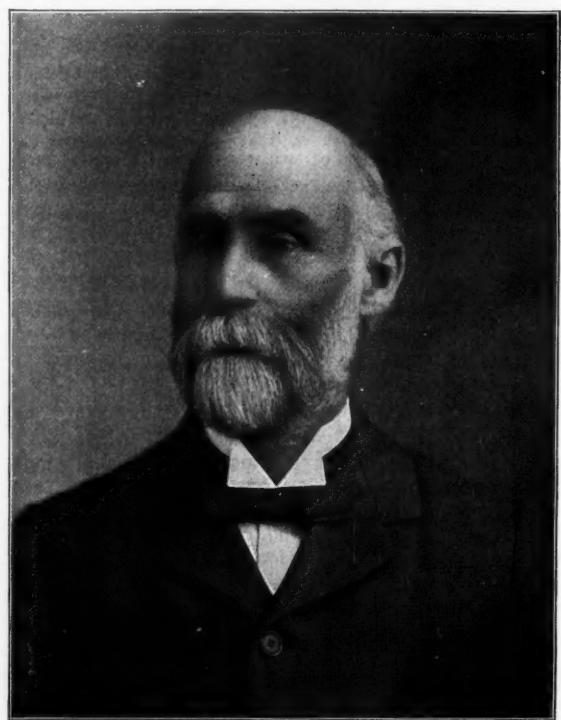
Anniversary of Vanderbilt University.

NASHVILLE, TENN.—Vanderbilt university celebrated its twenty-fifth anniversary October 20-23. The university was the gift of the late Cornelius Vanderbilt who was made interested in Southern education by his cousin, Bishop McTyeire, of the Methodist Episcopal church. Since the original donation the institution has been so substantially aided, from time to time, by different members of the Vanderbilt family, that a fine library, a gymnasium, a Biblical department, a science hall, and various dormitories have been added.

Bishop McTyeire was the first president of the board of trustees, a position he held until his death, in 1889. Many prominent educators and hundreds of the university's graduates attended the anniversary exercises. A memorial address was given, on Sunday, by Bishop Hargrove on "The Founders and Organizers of the University." A reception to delegates from sister colleges and universities, with addresses by prominent speakers, was held on Monday. On the last day of the celebration President Hadley, of Yale, delivered a masterly address on "The Direction of American University Development." Chancellor Kirkland gave a report of the twenty-five years of the university's work. Mr. W. K. Vanderbilt, a grandson of the founder, formally presented Kissam Hall, a dormitory designed to accommodate two hundred students and named for the donor's mother.

Rhode Island Institute.

PROVIDENCE, R. I.—The fifty-sixth annual meeting of the Rhode Island Institute of Instruction was held at Providence, October 25-27, in charge of Pres. Nathan G. Kingsley. At the opening session Hon. Thomas B. Stockwell, who has served for twenty-five years as commissioner of education spoke upon a "Quarter Century of Educational Progress in Rhode Island." He outlined the changes from the elimination of the old-time school-house in which the pupils sat facing the wall with their backs to the center of the room, to the development of the modern structure with its facilities for work and its general convenience. Specifically, the quarter century has seen the development of the town system in place of the district school. Following that, and in line with its spirit, has come a system of state examination and certifying of teachers under charge of the board of education. This is leading to better preparation on the part of teachers, and a more marked professional spirit. The system of town high schools has been developed. At the



Supervisor George H. Martin, of Boston, who was elected Oct. 7.

same time the scope of these schools has enlarged so that they are no longer mere places for the study of Latin and Greek, in preparation for college, but furnish facilities for the study of branches leading to practical life as well. Another element of progress has been the normal school. Started in an abandoned church in 1871, it soon outgrew its building. When the high school moved to its new quarters, in 1878, the state took the abandoned building, and gave the normal school what was supposed to be its permanent home. But growth again made the quarters too small for its accommodation and forced the state to build the commodious structure now its home, where all that can conduce to the development of the teacher is furnished. And starting with only twenty-five pupils and three teachers, its present size shows wonderful progress.

Mr. Frank A. Fitzpatrick, of Boston, spoke upon "General Educational Progress."

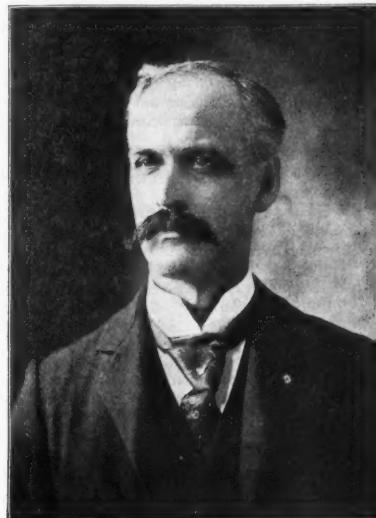
At the meeting of the department of higher education, Dr. Ray Greene Huling, of Cambridge, Mass., gave an address upon the proper service of the high school. He presented as the key note of the high school, the responsibility of the state for the education of all the youth, and the need of giving a liberal education to all the young. The high schools began in Boston, in the year 1821, in an attempt to furnish an academic education free of cost. They have practically replaced the local academies, as these in turn had replaced the earlier grammar schools, so-called, because the youth were then taught Latin grammar. They are thus the latest step in the line of progress which led to the founding of the great English schools, Winchester in the fourteenth century, Eton in the fifteenth, Harrow in the sixteenth, and the German gymnasia in the eighteenth. The period when the teacher of the secondary schools has the pupil in charge is specially the formative life of youth. It has been well styled the period of second birth. Hence, the molding of the plastic material into form for true service is the special function of the high school.

To have the high school under the proper service, it must follow properly the primary education, must lead the individual into society, and so must enable him rightly to enjoy life. To accomplish this it must maintain the health of every pupil. Hence special attention must be given to the seating, lighting, heating, and sanitation, while proper interest must be developed in gymnastics and athletics. The school must also plant impulses in the pupil which shall stimulate to a continuance of self-development and self-culture after the school life ends.

Mr. Arthur Wescott, of New York, spoke upon "The Treatment of Animals as Friends and Aid to the Development of

Moral Sense in Children." He showed how such a treatment of animals appeals directly to the sensitive nature of the child and so cultivates the right disposition. The "Protection League," which he represents, seeks to make city children familiar with all forms of animal life.

On Friday afternoon, Mr. James G. Croswell, of New York, spoke before the high school section upon the "Value of



Prin. Nathan G. Kingsley, Providence, R. I.,
President Rhode Island Institute, 1899-1900.

Latin Instruction in Secondary Schools," and Dr. John Tetlow, of Boston, upon the "Election of Studies in High Schools."

A very interesting talk was given by Dr. Charles De Garmo, of Cornell university, in answer to the question, "How Shall the Teacher Save Her Soul?" Dr. DeGarmo held that the

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only real success must come by as genuine a transfusion of the soul of the teacher into the pupils as formerly was found in the transfusion of blood among different tribes of savages. Thus and thus only can the teacher really live in the character and life of coming generations.

On Thursday evening came the reception to the Hon. Thos. B. Stockwell on the completion of his twenty-fifth year as commissioner of education, a brilliant affair, and carried out in the spirit in which it was conceived.

Saturday morning, Editor Ossian H. Lang, of THE SCHOOL JOURNAL, spoke on "The Common School as a Social Center." He outlined what he believes to be the great step to be taken next in our schools, that of making them the center of all social influences in the community. The associations of their alumni must become the factors in all movements to advance the community.

New England History Teachers' Association.

The fall meeting of the History Association was held at Boston university, October 20, with Pres. Wilbur F. Gordy, of Hartford, Conn., in the chair. The topic of primary interest was the requirement for college entrance. Prof. Edwin A. Start, of Tufts college, showed how far the requirements adopted at the meeting in Providence in October, 1895, had been accepted by the colleges. Harvard and Dartmouth had adopted them in full, and Tufts as an alternative. Yale proposes to give the new requirements consideration, and Mt. Holyoke, Smith, and Wellesley are approaching them. This is encouraging, but the great advance is not in the requirements but in the quality of work done in the schools.

Headmaster Ray Greene Huling, of Cambridge, continued the discussion, crediting Profs. Start and Alfred Bushnell Hart with the encouraging advance in the teaching of history. He deprecated the haste with which pupils often prepare their work. Prof. Anna M. Soule, of South Hadley, and Prof. H. D. Foster, of Dartmouth, spoke on the same topic.

Pres. Wm. H. P. Faunce, of Brown university, congratulated the association upon its rapid growth, and expressed the view that the association would ultimately succeed in removing cramming from the schools. Then history will enable the people thru a consideration of the historic associations, which surround on every hand, to remove the crudity, the presumption, and the conceit in which we now live. This spirit will aid in general progress. Mr. Edwin D. Mead held to the true and large interpretation of history in the hands of the philosophic man. This always re-enforces the spirit of progress, as the true interpretation of evolution stimulates natural religion. The march of human liberty goes steadily forward, and however much there may be to discourage, influences are progressing which shall better the world.

Middlesex County Teachers' Association.

The annual meeting was held in Boston, October 26. The session began with a "half-hour of song," given by the Everett high school chorus, led by Mr. A. S. Colburn. The principal address was given by Pres. Charles S. Murkland, of New Hampshire state college at Durham, upon "The Ethical View." President Murkland argued that the nature impulse which controls lower life and keeps plant and animal true to its purpose manifests itself in human life and society in the impulse to duty. Hence this must be rightly developed and rightly guided. The only supremely good thing is a good character.

Mr. Randall J. Condon, of Everett, was chosen president for the coming year, and James W. Applebee, secretary-treasurer.

Massachusetts Institute of Technology.

Dr. Henry Smith Pritchett was formally inaugurated as president on Wednesday, October 24. The hall was completely filled, the 1,200 students and 177 professors occupying the main floor. The corporation and invited guests, consisting of the civil officials and prominent educators, were seated on the platform. Col. Thomas L. Livermore spoke in behalf of the corporation, formally pronouncing Dr. Pritchett the president. He expressed his great satisfaction at the success of the committee in their search for a fitting successor to the distinguished men who had already held the office. He congratulated Dr. Pritchett on what he had already accomplished, and assured him of the full confidence and aid of the corporation in his new duties.

Prof. James M. Crafts spoke in behalf of the faculty, giving some idea of the special work which falls to a professor of science, and showing how the public benefits from the results. Senator Henry Cabot Lodge gave a pleasing address upon the character and functions of a university president. He summed up the vital qualifications as four: high character, ample learning, proved executive ability, and experience in the world.

President Pritchett's address had for its subject, "The Relation of Education to the Work of Government." After showing how at the present time the best work in all departments falls to the lot of the college man, a remarkable fact when less than one per cent. of the people have been liberally educated, he stated that the nation still lacks men of this training. He held that more must be done in the future to fit men directly for government work. The first qualification must be true manhood.

Patriotism in the Public Schools.

CAMPBELL, MASS.—Mrs. Julia Ward Howe was the honored guest of the Plymouth County Teachers' Association at their annual meeting Oct. 27. Her address was a plea for the consideration of the moral side of our national development; The military and material side has already been sufficiently emphasized. The child who sits at his school-room desk must be trained to be a guardian of peace and lawfulness, not a mere promoter of trade with China and India. A certain type of the military spirit must be cultivated,—the disposition to struggle against the sordid, ignoble ideals that are everywhere prevalent, against greed and dishonesty, the paltry ambitions of men and the fatal vanities of women.

Other speakers were Pres. G. Stanley Hall, of Clark university, whose address entitled "An Ideal School," was full of useful suggestions, and Dr. Grace N. Kimball, of Vassar college, who had for her theme, "Health Relations in Teacher and Pupil."

The newly elected president is Asher J. Jacoby, of Middleboro; the secretary-treasurer, Charles Jenney, of Brockton.

Massachusetts Superintendents Meet.

SPRINGFIELD, MASS.—The thirty-third meeting of the Massachusetts School Superintendents' Association was held in this city, October 20. The morning session was given over to the "Relation of the Superintendent to the School Committees." The speakers presenting the subject were Rev. George W. Solley, chairman of the Deerfield school committee, and Supt. George I. Aldrich, of Brookline. Mr. Solley believed that a school committee should act as a legislative body and that the superintendent should stand as the executive of that body to carry out its wishes, thus avoiding all misunderstandings as to authority and responsibility.

Supt. Aldrich was of the opinion that advantage would be gained if superintendents were elected at the pleasure of the committee and if, when fault was found with a superintendent's policy, it be made necessary for the dissatisfied persons to prefer charges before the committee. He believed the frequent changes of superintendents to be detrimental to educational progress.

Mr. Frank A. Hill, secretary of the state board of education, made an earnest plea for state examination and certification of teachers. Mr. J. E. Warren, of Northfield, Mass., spoke on "How to Make State Aid More Valuable to Small Towns." Mr. Warren was of the opinion that the standard of the forty-one high schools, helped by the state, should be raised thru the instrumentality of the state board of education.

Principal Baldwin, of the Hyannis state normal school, presented the report of the committee of scientific temperance, which was accepted. The report embodied an account of the conferences between the representatives of the W. C. T. U. and the public school officials looking to harmonious action on the subject of scientific temperance.

Another Text-Book Fight.

PROVIDENCE, R. I.—Two prominent members of the Providence school committee are involved in a wordy war over the rightfulness of the admission of Wentworth's algebra into the classes at the high schools. The facts of the case are as follows:

The authorized text-book for several years has been Wells' algebra. On May 22, 1899, by recommendation of the high school committee, a resolution adopting Wentworth's instead of Wells' was brought before the whole school board and was defeated. A month later, at the next board meeting, the resolution came up again and was amended to read that Wentworth's algebra be taken on, not as originally expressed "in place of Wells' algebra," but "in addition to Wells' algebra." In other words Wentworth's was put upon the list of supplementary books. That is apparently its legal status at the present time.

Now the fight has come from the fact that the supplementary book has been put into use in the classes to the exclusion of the regularly authorized book. There seems to be nothing in the by-laws that regulate the adoption of supplementary books to prevent this. The teachers concerned are not quoted as favoring either book. The employment of Wentworth's to the exclusion of Wells' is said to be simply the result of an order given at the close of last year to leave all the high school bookcases open; at the beginning of the fall term it was found that the Wells' books had been removed and the Wentworth's were filling the case, so that teachers had nothing to do but to use the supplementary books.

One curious feature of the case is that Ginn & Company, with whom the order for the Wentworth was placed, have not yet been paid, altho their bill for the books has been properly rendered. Supt. Tarbell knew nothing of the substitution of the supplementary for the authorized book until his attention was called to it very recently by one of the high school teachers. He states that no blame can be attached to the publishers of either book and that there has never been heretofore in Providence, so far as he knows, any abuse of the supplementary text-book systems.

Brief New England Notes.

BOSTON, MASS.—A portable school-house, made of sheet-iron and asbestos, has been erected in the Roxbury district. The building consists of but one room which contains fifty-four desks. It is well lighted and ventilated and altogether exceedingly comfortable.

ANSONIA, CONN.—The board of education is considering sites for a new school building. So many districts need additional school room that it is a hard problem to know just where to place a new structure so that the most benefit may be derived.

GROTON, MASS.—The new chapel at Groton school was formally dedicated Oct. 13. The presentation was made by Bishop Lawrence who led in the exercises that followed.

Educational Meetings.

Nov. 29-30.—West Virginia Teachers' Association, Clarksburg.

Nov. 29-30.—Western Kansas Educational Association, Newton.

Nov. 30-Dec. 1.—Massachusetts Teachers' Association, Boston.

Nov. 30-Dec. 1.—Michigan Schoolmasters' Club, Ann Arbor.

Nov. 30, Dec. 1.—North Central Kansas Teachers' Association, Beloit.

Dec. 7 and 8.—Meeting of New Jersey High School Teachers' Association, Newark. President, H. C. Krebs, Somerville, secretary, Cornelia MacMullan, South Orange.

Dec. 20-22.—San Joaquin Valley (Cal.) Teachers' Association, Fresno.

Dec. 26-28.—Iowa State Teachers' Association, Des Moines.

Dec. 26-28.—South Dakota Teachers' Association, Yankton.

Dec. 26-28.—Illinois State Teachers' Association, Springfield.

Dec. 26-28.—Kentucky Educational Association, Louisville.

Dec. 26-28.—Minnesota Educational Association, St. Paul; D. E. Cloyd, secretary.

Dec. 26-29.—Wisconsin Teachers' Association, Milwaukee.

Dec. 27-28.—Louisiana Teachers' Association, Alexandria.

Dec. 27-29.—Southern Educational Association, Richmond, Va. Secretary, Prof. P. P. Claxton, Greensboro, N. C.

Dec. 28.—Michigan Teachers' Association, Grand Rapids.

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In and Around New York City.

Plans have been filed in the department of buildings by Mr. C. B. J. Snyder, architect of the board of education, for a new city high school in the Bronx district. The cost will be \$400,000. The school will be five stories in height and will have frontage in 166th street, Jackson avenue, and Boston road. The board of education was successful in securing the writ of mandamus compelling the board of aldermen to make provision for this school.

Talk of Cutting Manual Training.

All the associate superintendents are in favor of keeping manual training in the schools, but nearly all admit that the time now given to it is somewhat excessive. Associate Supt. George S. Davis, chairman of the committee on course of study, is said to be the only one who does not favor retrenchment in the matter of time. He states that the present hue and cry against the allotment of time arises from the fact that teachers in their anxiety to complete the required work in manual training are giving much more time to it than the schedule calls for. The result is that other studies suffer and pleas arise for revision of the course of study. The real remedy, in Mr. Davis' opinion, is to cut down the amount of work so that it can be done in the prescribed time. Too many things are now suggested as possible which conscientious teachers are inclined to regard as essential.

The Bickmore Lectures.

Tickets are now being issued to the Fall course of lectures to teachers given by Prof. Albert S. Bickmore under the auspices of the State Department of Public Instruction at the Museum of Natural History. The opening lecture comes off November 3.

These lectures are exciting especial interest among scientific people for the reason that they will test fairly the new electrical apparatus for throwing the illustrations upon the screen, special mention of which is made in the School Equipment department of this week's JOURNAL.

Prof. Bickmore in his lectures will use a double screen and two two-lamp lanterns, by means of which, two pictures can be thrown upon the screen at once. There is a large center screen which rolls out of the way when not in use.

New York Society of Pedagogy.

The first of a series of talks upon English grammar, rhetoric and composition, by Mr. Bernard J. Devlin, was given in public school No. 6, 86th street and Madison avenue, on Monday October 29, at 4 P. M. This will be repeated at public school, No. 61, on Monday, Nov. 5.

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Courses For Teachers.

The New York Society of Pedagogy announces that the following courses have been arranged. Details will be given in next week's SCHOOL JOURNAL:

Psychology for Teachers: Curtis G. Magie.

Rhetoric and Composition. Bernard A. Devlin.

Literature: Homer W. Churchill.

Additions have also been made to the course in Illustrated Blackboard Work under Miss Grace A. Gibson.

A New Hall at Columbia.

It is well-known that the anonymous donor of Earl Hall, which is to be the center of the religious activity of Columbia university and to be under the control of the Young Men's Christian Association, is Mr. William Earl Dodge. Earl Hall is to stand to the west of the present library building. It will cost about \$100,000.

Jersey City Items.

The board of education has prevailed upon the finance board to make available \$140,000 for the building of new schools and the transforming of old ones. It is proposed to build a school in the twelfth ward for the accommodation of grammar pupils only, to cost \$80,000; a primary school in the eighth ward to cost \$55,000, and to spend the remainder in so changing existing buildings as to accommodate very soon several hundred pupils. About \$40,000, it is expected, will be realized from the sale of the old high school site, purchased some years since but never used, and the lot where school No. 20, which was burned, stood.

Under the leadership of the Primary Principals' Association a college extension course in literature has been started in Jersey City under the direction of Prof. Baker, of the New York Teachers college. Many teachers are availing themselves of this opportunity to study literature under so competent an instructor.

A new departure in school affairs of Jersey City is the appointment by the board of a school architect at a salary of \$3,000 per year. The new officer is not only to have charge of the plans and construction of all new buildings but also of all repairs.

Beginning Monday, October 29, six physicians will begin their visits to the several schools. All pupils whom the inspectors find in a condition unfit to be in school will be excluded. The inspectors will also thoroly inspect the buildings, the object being to prevent the inception and spread of contagious diseases and to aid in securing medical attendance where it is most needed.

Notes from Philadelphia.

Teachers Make Excursions.

PHILADELPHIA, PA.—The teachers and friends of the public schools visited the state fish hatchery near Allentown on a recent Saturday. The purpose of the excursion was to learn something of the development of fish life. The party was in charge of the assistant secretary of the state fish commission who delivered an address on fish culture after conducting the teachers thru the houses and grounds comprising the hatchery. The trip took in Bethlehem where the Moravian settlement was visited.

No Evening Cooking Schools.

The evening cooking schools will not be in session this year because the outlay has not been warranted by the comparatively few pupils attending them in any year since their establishment. The other evening schools, including the regular schools, the sewing schools and the graded schools, will open November 5.

New Building Ready for Occupancy.

The James Campbell school-house, Eighth and Fitzwater streets, has been formally accepted by the board of education. It is the largest elementary school building in the city and has accommodations for 1,350 pupils. In every respect it is a modern school-house, the playgrounds are located in the basement and on the fifth floor. In the rear of the building are two enclosed brick and slate fire-escapes, and between these on each floor are pupils' lavatories. Tower escapes and lavatories are separated by air shafts so that the danger of unhygienic conditions is reduced to a minimum. The basement, which is but a few inches below the level of the street, has two entrances from the sidewalk. This arrangement will let the pupils have access to the playground immediately on reaching the building and in stormy weather they will be protected from the elements until the opening of school.

This building replaces the famous Ringgold school erected in 1832 and recently torn down.

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Interesting Notes from Everywhere.

MADISON, WIS.—Prof. M. V. O'Shea has been granted leave of absence by the regents of the University of Wisconsin to visit some of the Eastern universities and to accept a number of invitations to lecture before conventions, societies, and educational institutions. He left Madison, Oct. 25, for Iowa, where he delivered two addresses before starting for the East.

EASTON, PA.—At recent celebration of Founders' day at Lafayette college a beautiful memorial window, the gift of Mrs. A. S. Van Wickle, of Hazleton, was unveiled in the Van Wickle library. Among the degrees conferred by the college, on that day, was that of doctor of laws on W. W. Cottingham, superintendent of the schools in Easton for forty-seven years.

The trade school under the auspices of the Massachusetts Charitable Mechanics' Association, which was described in a recent issue of THE SCHOOL JOURNAL, opened Oct. 29, with a large attendance.

MADISON, WIS.—The fourth semi-annual meeting of the North Central History Teachers' Association, held in this city October 20, was of practical interest and value to history students. The chief address was that by Prof. C. H. Haskins, of the University of Wisconsin. His subject was, "In what way should the history of the Roman Empire be studied in schools?" Miss Phoebe I. Sutliff, of Rockford college, urged that diplomatic and industrial history be given a more conspicuous place in the curriculums of high school and colleges. Prof. James A. James, of Northwestern University, was chosen president of the association.

SAN FRANCISCO, CAL.—Superintendent Webster, in his last monthly report, showed that the average number of pupils to a teacher in many of the public schools of the city is too large for the accomplishment of really good work. In one grammar school the average is fifty-five pupils to a room.

DELPHI, IND.—The schools here are closed on account of an epidemic of diphtheria. This is the first time since the establishment of the public schools, twenty-eight years ago, that it has been necessary to close them for such a cause.

BINGHAMTON, N. Y.—The board of education has decided that in the future it will superintend the work of fumigating school buildings. This resolution is due to the incorrect method recently employed by the board of health whereby new school furniture of the St. John avenue school was badly injured. It is expected that the board of education will seek to recover damages from the board of health.

READING, PA.—Dedication exercises were held recently in one of the large school buildings just erected to celebrate the completion of three new school-houses and five new additions, in a single year. Previous to the indoor program school children paraded the streets, houses along which were decorated and illuminated.

KENOSHA, WIS.—The board of education finding that the school funds were exhausted has arranged a loan with the City National bank.

FORT WORTH, TEX.—A system is on trial here for promoting pupils of the first three grades as rapidly as they are ready. To further the progress of the work the teachers have organized themselves into committees on the different divisions of study, each section with its own leader and secretary. Monthly

meetings are held at which instruction is received and ideas exchanged.

SOUTH BEND, IND.—Owing to a great epidemic of diphtheria in this city the schools did not open for the fall term until Oct. 15. The pupils have been provided with individual drinking cups as one precaution against the disease.

BATAVIA, N. Y.—The free text-book system is to be inaugurated in the schools of this town. An exhaustive report covering the method of its inauguration and the rules governing it has been prepared by the text-book committee, Mr. M. J. Earley, chairman.

PATERSON, N. J.—At a special school election in Richfield, it was voted to bond the township for \$8,000, the money to be used for erecting a new school-house and to pay for an addition to the Lakeview school.

GREENVILLE, TEXAS.—Citizens of Greenville are endeavoring to secure for this place the girls' industrial college which will be established, shortly, by the state, in accordance with an act recently passed by the legislature.

CHICAGO, ILL.—One of the trustees of Beloit college has given \$200,000 to the college, provided \$150,000 be raised by other friends of the institution. A large sum towards that amount has already been pledged, and it is expected that the remainder will be made up before the first of January.

Recent Deaths.

SIOUX CITY, IA.—Prof. J. N. Hamilton, superintendent of the Sac City public schools, died October 13. He had been in failing health for some time, but he remained in the schoolroom up to the day of his death. This would have been Prof. Hamilton's ninth year of work in the Sac City schools.

SALT LAKE CITY, UTAH.—Prin Joseph Whately, of the Salt Lake school of law, dropped dead in his chair, at the school, October 18. He was a graduate of Oxford university, England, and had been, at one time, an Episcopal clergyman.

AUSTIN, TEXAS.—Prof. W. W. James, known thruout the state as a prominent educator, died in this city Oct. 9. Prof. James was a native of Virginia and came to Texas in 1858.

PEORIA, ILL.—Jacob Gale, formerly circuit judge, mayor, and country superintendent of schools, died here Oct. 21, at the age of eighty-six years.

LYNN, MASS.—Mr. Bernard Wright Owen, principal of the Tracey grammar school, died suddenly of appendicitis, Oct. 22. Altho but twenty-eight years of age, he had attained considerable prominence as a teacher. He was a graduate of Bates college and Brown university, and had taught in Rhode Island and Maine before coming to this city. He was a member of the Schoolmasters' Club and treasurer of the Lynn Educational Society.

The death of Prof. C. C. Everett, dean of the Harvard Divinity school, has removed one of the most sympathetic college teachers in the country. Prof. Everett lacked the vigorous personality of Theodore Parker and Martineau, but on the intellectual side he was hardly their inferior. He was as accurate a scholar and as kindly a teacher as Harvard has ever known.

DRYDEN, N. Y.—Mr. H. D. Cannon, for the last three years principal of the public school here, has resigned to accept a position in Louisville, Ky. He will be succeeded by Professor Clark, lately vice-principal of the Moravia school.

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School Law.

Recent Legal Decisions.

By R. D. FISHER.

Conduct and Discipline of Pupils.

An Illinois ruling states that a regulation prohibiting children who have just arrived at school age from entering the school at any time except during the first month of the fall and spring terms is not reasonable or calculated to promote the objects of the law. Under Art. 6 of the school law, boards of education have the right to adopt only reasonable rules in regard to the admission of children over six years of age, which may operate to prevent such children from entering school immediately after arriving at the age of six years. (Board of Ed. *vs.* Bolton, Ill. App. C., June, 1900.)

A school boy in Missouri ran against a smaller boy and injured him on the playground. The injured boy had to be sent home. The offender was requested to accompany him but was unwilling to comply with the request and was in consequence expelled from the school by order of the school board. His parents tried to get him reinstated by writ of mandamus, but it was decided that the board could not be controlled by such mandamus. (State *Ex rel.* Bealy *vs.* Randall, Mo. App. C., July, 1900.)

A farmer in Pennsylvania living two miles from the nearest school in his own township and one and one-half miles from a school in another township, applied to the school directors for arrangements whereby his children could be sent to the nearer school. The directors tried to make the arrangements but when they found it would cost them \$30 per year they refused to act. The court held that a rule to compel the directors to make the transfer must be discharged.

The action of school directors in refusing to transfer children from one school district to another, under the law authorizing such transfer where pupils live a great distance from the proper school-house will not be disturbed unless a clear abuse of discretion on the part of the directors is shown. (In Relation to Grove, Petitioner, Penna Can. Pl., June, 1900.)

Under the Pennsylvania compulsory education act of May 16, 1895, as amended July 12, 1897, making the board of school directors the judge of the truth and sufficiency of the excuses for keeping a child out of school, the court will not permit a parent when defending an action against him for keeping his children out of school to present such excuses to the jury as a defense where it appears that the defendant was repeatedly notified to appear and present the same to the board but neglected to do so. (Commonwealth *vs.* Hammer, 9 Pa. Dist. R. 251.)

School Board Cannot Fix Boarding Place.

A teacher went to a Wisconsin town for a term of seven months, at thirty dollars a month. In her contract was a clause stating that she was to board with a certain family for the whole time. Some trouble arose at the boarding place and she went elsewhere. Thereupon the boarding house keeper undertook to get the district to refuse payment for services rendered in the school on the ground that the contract had been violated. The court decided that the law does not

authorize a school board to bind a teacher to board with any special family in a district. The district has no legal interest in the teacher's boarding place.

Some California Rulings.

The wife of a school trustee cannot teach in a school district in which her husband is a trustee, since the husband is personally interested in the earnings of his wife, according to a decision of State Attorney-General Ford, in accordance with section 1876 of the Political Code.

If a controversy arises regarding the residence of parent or guardian of census children, the census marshal is empowered to administer an oath, to the parent or guardian, for the purpose of determining residence. The residence so determined shall be accepted as the legal residence until perjury shall have been proved in a court of competent jurisdiction.

The right to accept, reject, or correct the school census of any district in his county is vested in the county superintendent of schools. If an error in the census of a school district is proved, it is the duty of the county superintendent to have the error properly corrected. Again, if fraud is proved in any department of the census work the superintendent may reject the whole census, appoint another census marshal, and proceed to have the census retaken, drawing a requisition for whatever funds are needed in the re-taking. (Subdivision 5, Sec. 1636, Pol. Code.)

What is a "Common School Education"?

Governor Voorhees, of New Jersey, and State Supt. Baxter have agreed in rejecting the definition of "a common school education" which has been set up by the state board of dentistry. This board issues diplomas entitling the holders to practice dentistry in the state. It has refused a number of applicants because they were not high school graduates and, in reply to objections, asserted that, as the high school is a part of the common school system, they were within their rights in so doing. Mr. Baxter and the governor, however, have taken the position that the high school, instead of being the common, is really the exceptional school being found only in the most progressive centers of population. There is, therefore, no authority for making a high school education a prerequisite for admission to an examination to practice dentistry.

No Right to Transfer or Remove Without Cause.

Mandamus proceedings brought by Charles S. Hartwell, formerly a teacher of English in the boys' high school, Brooklyn, have resulted in his reinstatement. Justice Hooker, of the Supreme Court of New York, decided that the borough school board has no right to transfer a public school teacher holding a permanent position in one school to a temporary position in another school. The case grew out of the transference of Mr. Hartwell from his position at the boys' high school to a one-year appointment in the commercial high school. This action was the result of charges, in themselves admitted to be trivial, brought against Mr. Hartwell by Dr. John B. Dunbar, principal of the boys' high school. A writ of peremptory mandamus was issued commanding the school board to reinstate the petitioner at once.

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